

MHC-1750

SERVICE MANUAL

*US Model
Canadian Model
Mexican Model*

- MHC-1750 is composed of following models.
As for the service manual it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR MHC-1750

AMPLIFIER, DECK, TUNER	HST-H1750
CD PLAYER	CDP-H1750
SPEAKER SYSTEM	SS-H1750

SPECIFICATIONS

Power requirements	120 V AC, 60 Hz
Power consumption	For U.S.A.: 70 watts For Canada: 77 watts
Dimensions	Approx. 225 x 300 x 310 mm (w/h/d) (8 ⁷ / ₈ x 11 ⁷ / ₈ x 12 ¹ / ₄ in.) incl. projecting parts and controls
Weight	Approx. 11.3 kg (24 lb 15 oz)
Supplied accessories	Remote Commander (1) : (RM-S175) Sony SUM-3 (NS) batteries (2) AM loop antenna (1) FM antenna (1) AC power cord (1) Flat cord (1) Speaker cord (2)

Design and specifications subject to change
without notice.

PARTS LIST

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref. No.	Part No.	Description	Remarks
ACCESSORIES & PACKING MATERIALS			

	1-466-897-11	REMOTE COMMANDER (RM-S175)	
	1-501-374-11	ANTENNA, LOOP	
	1-557-954-21	CORD, SPEAKER CONNECTION	
	1-575-706-11	CORD, POWER	
	1-696-412-11	CORD (WITH CONNECTOR)	
	3-703-710-41	STICKER SONY SYMBOL (12) (HST-H1750)	
	3-755-941-11	MANUAL, INSTRUCTION (SPANISH) (Mexican)	
	3-755-941-22	MANUAL, INSTRUCTION (ENGLISH/FRENCH)	
	4-941-762-11	COVER BATTERY (RM-S175)	
*	4-953-667-01	CUSHION (R) (CDP-H1750)	
*	4-953-668-01	CUSHION (L) (CDP-H1750)	
*	4-953-669-01	CUSHION (R) (HST-H1750)	
*	4-953-670-02	CUSHION (L) (HST-H1750)	
*	4-955-692-01	INDIVIDUAL CARTON	

MINI Hi-Fi COMPONENT SYSTEM
SONY®

HST-H1750

SERVICE MANUAL

*US Model
Canadian Model
Mexican Model*



HST-H1750 are the
STEREO DECK RECEIVER
in MHC-1750.

Dolby noise reduction manufactured under license
from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks
of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	TCM-210W2

SPECIFICATIONS

**AUDIO POWER
SPECIFICATIONS (US MODEL)**
POWER OUTPUT AND TOTAL
HARMONIC DISTORTION:
With 6 ohm loads both
channels driven, from 80 —
20,000 Hz; rated 16 watts per
channel minimum RMS power,
with no more than 1% total
harmonic distortion from 250
milliwatts to rated output.

Tuner Section (HST-H1750)

System	FM stereo, AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 — 108 MHz
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	530 — 1,710 kHz (with the AM tuning interval set at 10 kHz) 531 — 1,710 kHz (with the AM tuning interval at 9 kHz)
Antenna	AM loop antenna, External antenna terminals
Intermediate frequency	450 kHz

Amplifier Section (HST-H1750)

Continuous RMS power output	20 + 20 watts (6 ohms at 1 kHz, 5% THD) 16 + 16 watts (6 ohms at 80 Hz — 20 kHz, 1% THD)
Inputs	VIDEO (phono jacks): sensitivity 450 mV, impedance 47 kiloms
Outputs	HEADPHONES (stereo minijack): accepts headphones of 8 ohms or more SPEAKERS: accepts speakers of 6 to 16 ohms

Cassette Deck Section (HST-H1750)

Recording system	4-track 2-channel stereo
Frequency response	(DOLBY NR OFF) 40 — 13,000 Hz (± 3 dB), using TYPE I cassette (Sony HF-S) 40 — 14,000 Hz (± 3 dB), using TYPE II cassette
Wow and flutter	0.1% WRMS $\pm 0.3\%$ (DIN)

— continued on next page —

MINI Hi-Fi COMPACT SYSTEM
SONY®

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General

Power requirements	120 V AC, 60 Hz
Power consumption	For US, Mexican: 70 watts For Canada: 77 watts
Dimensions	Approx. 225 x 300 x 310 mm (w/h/d) (8 ⁷ / ₈ x 11 ⁷ / ₈ x 12 ¹ / ₄ in.) incl. projecting parts and controls
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Supplied accessories	Remote Commander (1) Sony SUM-3 (NS) batteries (2) AM loop antenna (1) FM antenna (1) AC power cord (1) Flat cord (1) Speaker cord (2)

Design and specifications subject to change without notice.

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SAFETY-RELATED COMPONENT WARNING!!

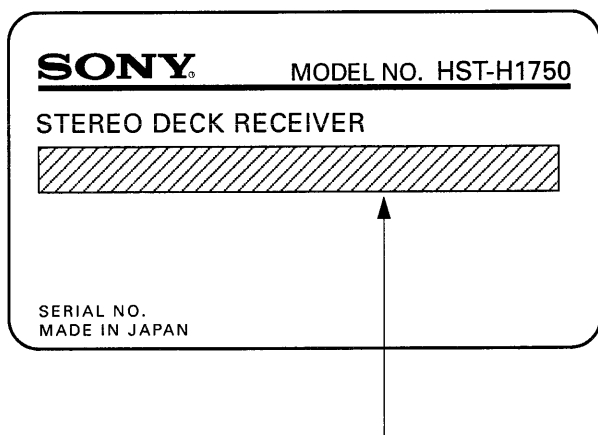
COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT
À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE $\triangle$ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER SES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MODEL IDENTIFICATION

– SPECIFICATION LABEL –



US, Mexican model : AC 120V 60Hz 70W
Canadian model : AC 120V 60Hz 77W

How to install CAM (A) and CAM (B)

When the CAM (A) and CAM (B) removed or replaced. Make sure to install these cam's (marked **A** position) with marked **B** position of chassis as show in Fig. 1.

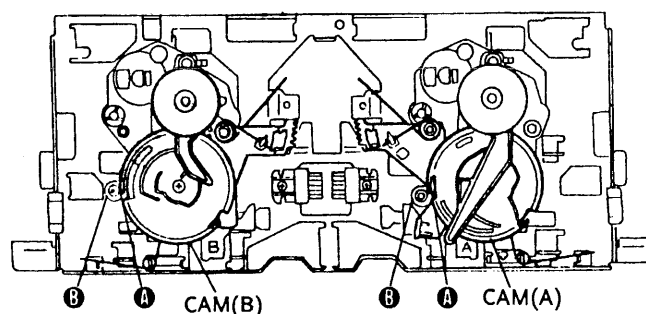


Fig. 1. STOP POSITION

TEST MODE

Tuned the power on after shorted between TP801 and TP802. (Audio System Control Board)
There are test can be done as show in below.

High Speed Playback Mode

Excutes high speed dubbing when the HIGH SPEED DUBBING button is pressed during normal speed mode of DECK-A or DECK-B.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig.A)

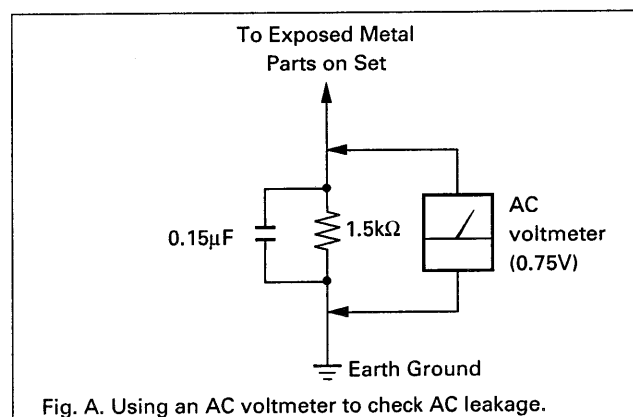


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1 GENERAL

This section is extracted from instruction manual.

Parts Identification

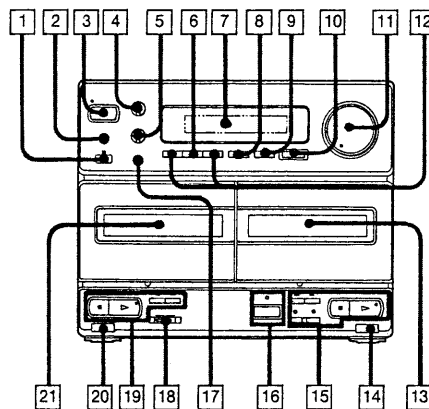
Tuner/Amplifier/Cassette Deck Section B

- 1 Remote control sensor
- 2 HEADPHONES jack (stereo minijack)
- 3 SYSTEM POWER switch and STANDBY indicator
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
- 4 TREBLE control
- 5 BASS control
- 6 BAND selector
- 7 Display window
- 8 MODE button
- 9 DBFB button
- 10 FUNCTION button
- 11 VOLUME control
- 12 TUNING/PRESET $\pm$ buttons
- 13 Cassette holder (Deck B)
- 14 Δ EJECT button (Deck B)
- 15 Tape operation buttons (for Deck B)
■: Stop button
▷: Play button and indicator
◀▶▶▶: Fast winding buttons
PAUSE || button and indicator
REC ● button and indicator
- 16 HIGH SPEED DUBBING button and indicator
- 17 MEMORY button
- 18 DOLBY NR (Dolby Noise Reduction) switch
- 19 Tape operation buttons (for Deck A)
■: Stop button
▷: Play button and indicator
◀▶▶▶: Fast winding buttons
- 20 Δ EJECT button (Deck A)
- 21 Cassette holder (Deck A)

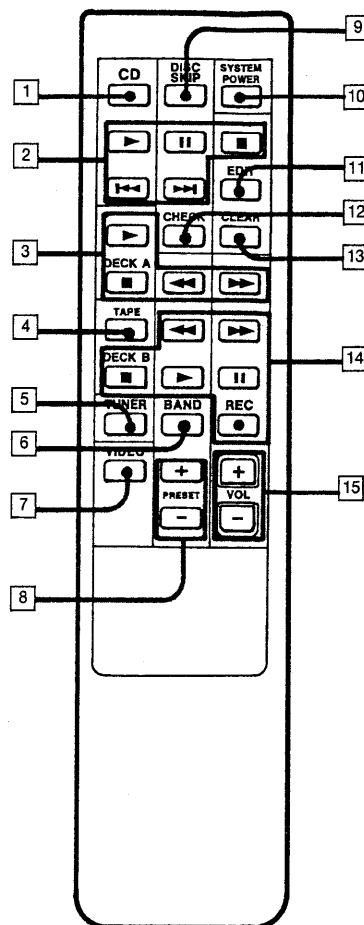
Remote Commander C

- 1 CD selection button
- 2 CD player operation buttons
- 3 Cassette deck operation buttons (for Deck A)
- 4 TAPE selection button
- 5 TUNER selection button
- 6 BAND button
- 7 VIDEO selection button
- 8 PRESET $\pm$ buttons
- 9 DISC SKIP button
- 10 SYSTEM POWER switch
- 11 EDIT button
- 12 CHECK button
- 13 CLEAR button
- 14 Cassette deck operation buttons (for Deck B)
- 15 VOLUME $\pm$ buttons

B



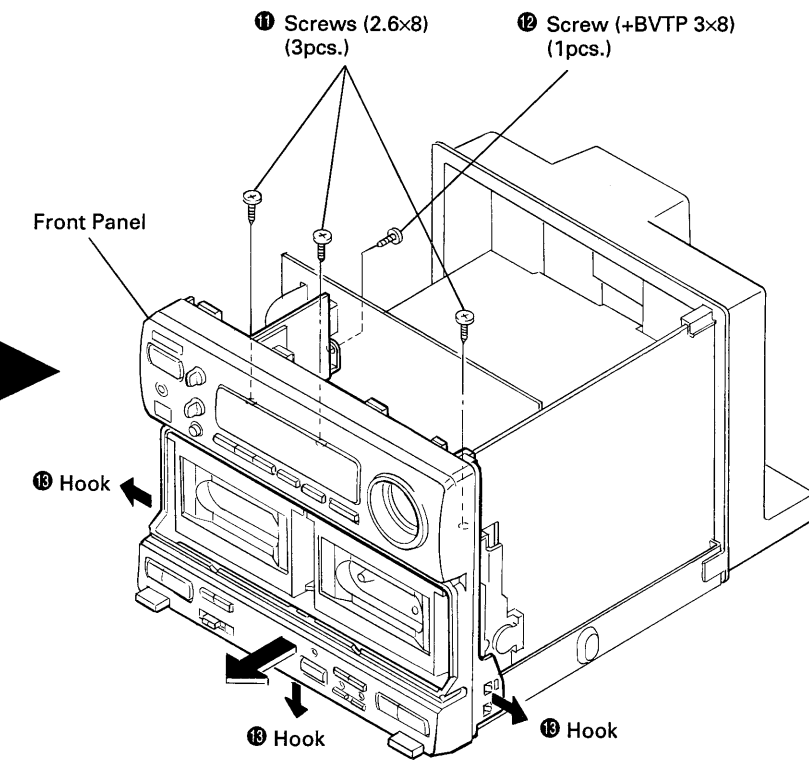
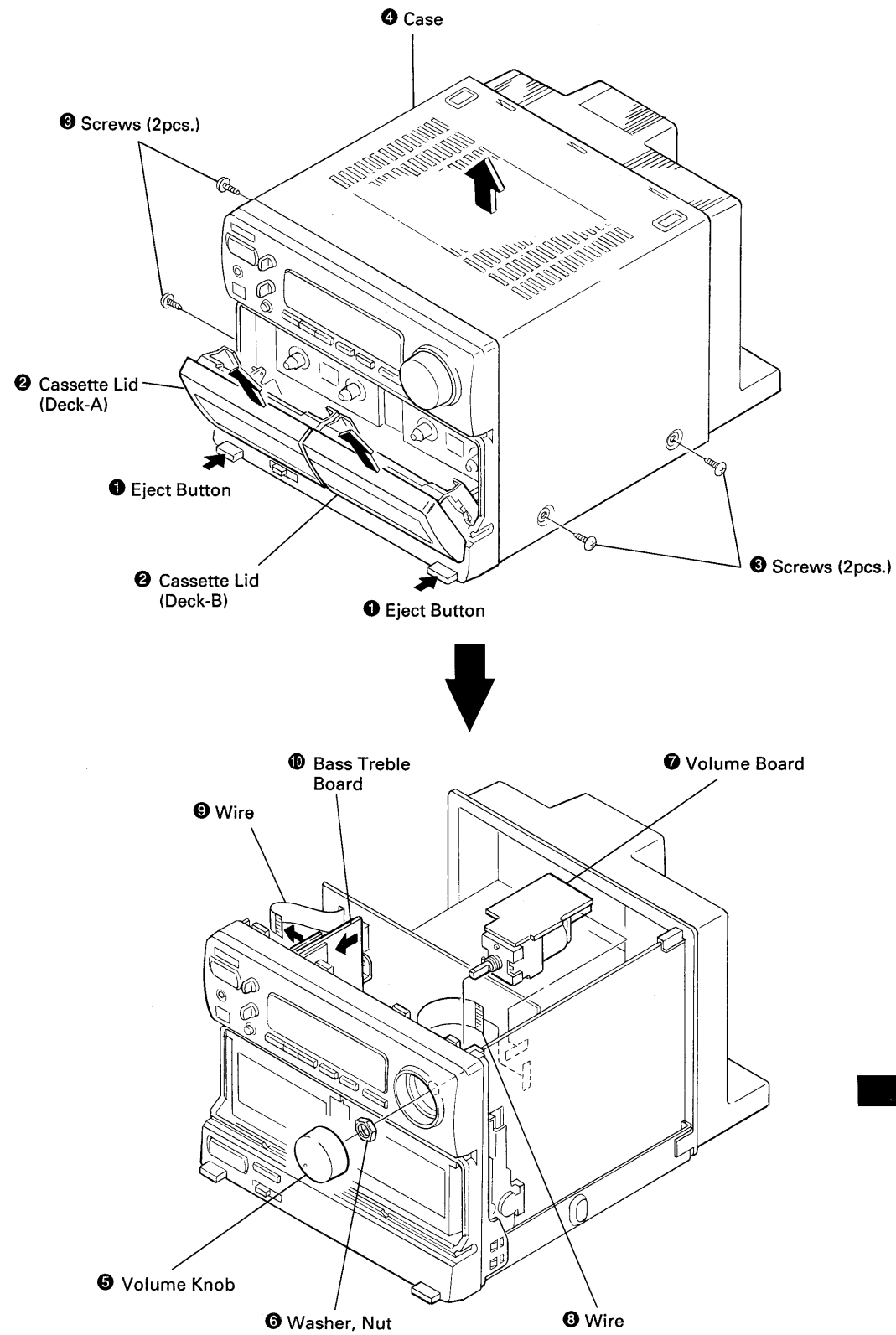
C



SECTION 2 DISASSEMBLY

- Remove the following devices shown by ❶, etc.
In the order of the numbers.

REMOVAL OF FRONT PANEL



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

- 1. Clean the following parts with a denatured-alcohol-moistened swab:

record / playback head

pinch roller

erase head

rubber belts

capstan

idler
- 2. Demagnetize the record / playback head with a head demagnetizer
- 3. Do not use a magnetized screwdriver for the adjustments.
- 4. After the adjustments, apply suitable locking compound to the parts adjusted.
- 5. The adjustments should be performed in the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30 to 70g•cm (0.42 to 0.98 oz•inch)
FWD Back tension	CQ-102C	1.5 to 7g•cm (0.021 to 0.098 oz•inch)
FF, REW	CQ-201B	less than 60g•cm (less than 0.84 oz•inch)

3-2. ELECTRICAL ADJUSTMENTS (TAPE SECTION)

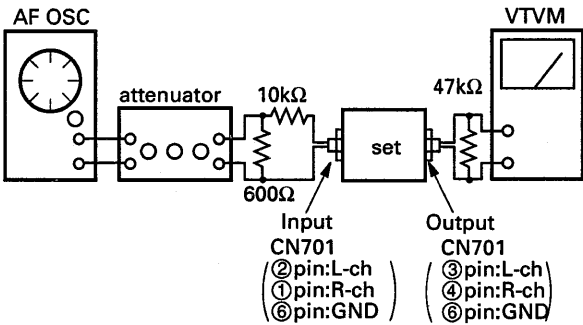
Note : The adjustment should be performed in the order given in the service manual. As a rule, adjustment about playback should be performed before adjustment about recording. The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF
- Standard Record :

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level as follows.

– Record Mode –



Standard Input Level

input terminal	Input (CN701)
source impedance	10kΩ
input level	0.25V (−10dB)

Standard Output Level

output terminal	Output (CN701)
load impedance	47kΩ
output level	0.44V (−5dB)

Test tape

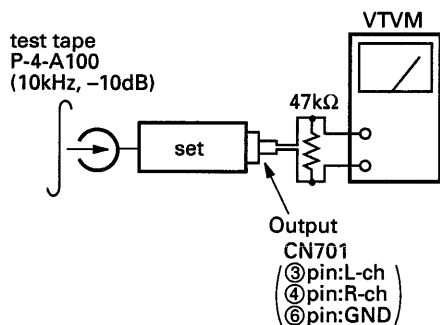
Type	Signal	Used for
P-4-A100	10kHz, −10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record / Playback Head Azimuth Adjustment

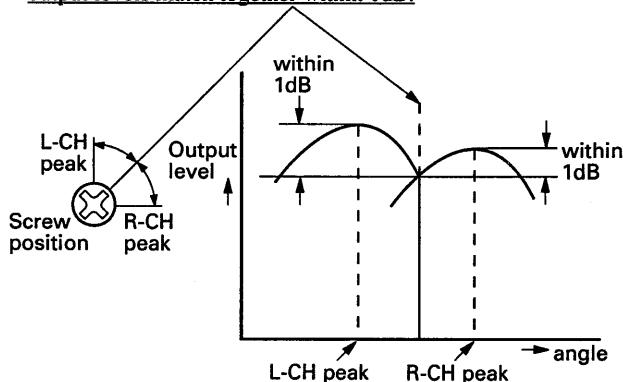
DECK A DECK B

Procedure :

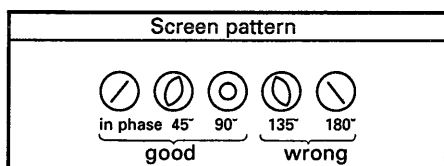
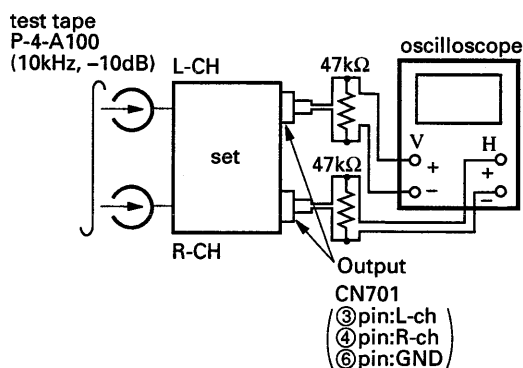
1. Mode : Playback



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.

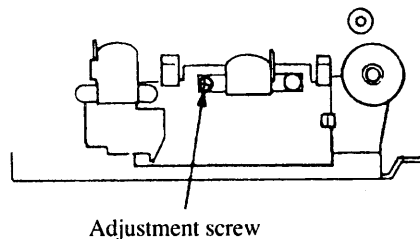


3. Phase Check
Mode : Playback



4. After the adjustment, lock the screws with suitable locking compound.

Adjustment Location : Record / Playback head

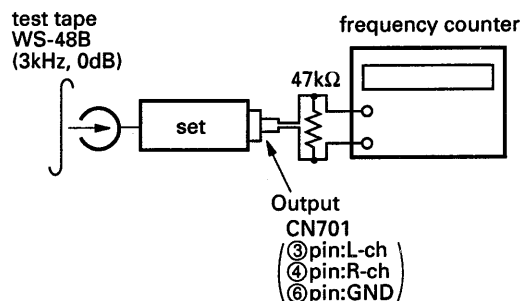


Tape Speed Adjustment

Note : Perform high speed adjustment before normal speed adjustment

Procedure :

Mode : Playback



(High speed adjustment)

1. Turn ON the power switch with TP801 and TP802 of the audio system control board shorted.
2. Set a WS-48B tape onto the deck A and press the ▷ switch to activate FWD.
3. Keep on pressing the HIGH SPEED DUBBING switch.
4. Adjust the RV601 so that the frequency counter reading becomes $5,700 \pm 20 \text{ Hz}$.
5. After adjustment, disconnect TP801 and TP802 shorted in step 1.

(Normal speed adjustment)

1. Press the ▷ switch to activate FWD.
2. Adjust the RV602 so that the frequency counter reading becomes $3,000 \pm 10 \text{ Hz}$.

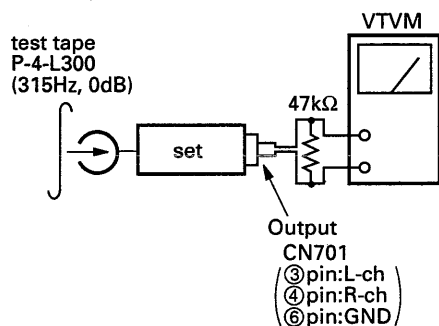
Frequency difference between the beginning and the end of the tape should be within 1.5%.

Frequency difference between deck A and deck B the beginning of the tape should be within 1.5%.

Adjustment Location : AUDIO SYSTEM CONTROL board

Playback Level Adjustment**DECK A** **DECK B****Procedure :**

Mode : Playback



Adjust deck A (RV101 : L-ch and RV201 : R-ch), deck B (RV111 : L-ch and RV211 : R-ch) so that the reading on VTVM meets the adjustment limits below.

Adjustment Limits :Output level : -2.7 ± 1.5 dB

Level difference between channels : less than 1 dB

Confirm that the OUTPUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : AUDIO SYSTEM CONTROL board

3. Playback the signal recorded in step 1.

Confirm that the 10kHz playback output is 0 ± 0.5 dB relative to the 315Hz output. If necessary, adjust RV121 (L-CH), RV221 (R-CH) and repeat the steps given above.

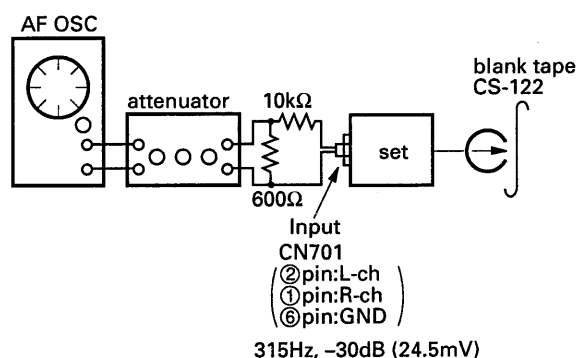
Adjustment Location : AUDIO SYSTEM CONTROL board

Record Level Adjustment**DECK B****Setting :**

REC LEVEL control : Standard Record (See page 7).

Procedure :

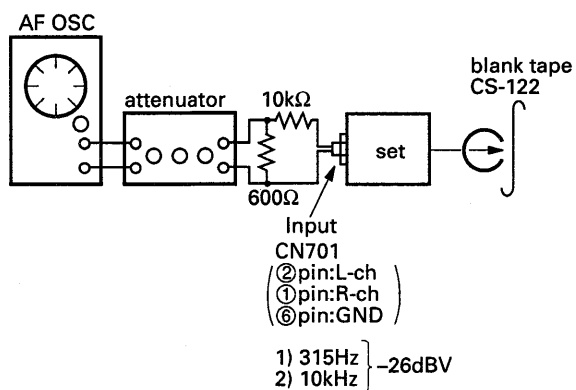
1. Mode : Record

**Record Bias Adjustment****DECK B****Setting :**

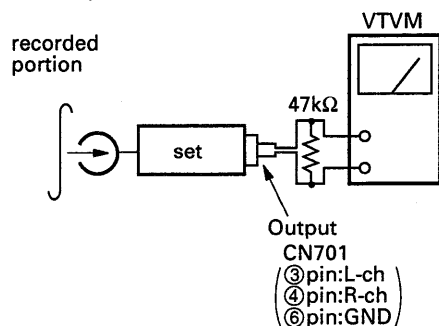
REC LEVEL control : Standard Record (See page 7).

Procedure :

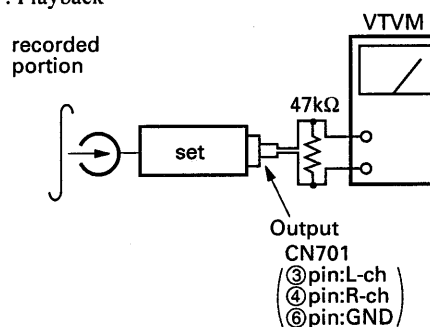
1. Mode : Record



2. Mode : Playback



2. Mode : Playback



3. Playback the signal recorded in step 1.

Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV131 (L-CH), RV231 (R-CH) and repeat the steps given above.

Adjustment Limits : $-22.7 \text{ dB} \pm 0.5 \text{ dB}$

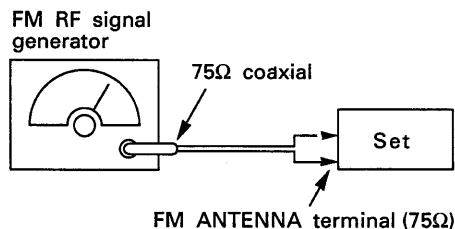
Adjustment Location : AUDIO SYSTEM CONTROL board

3-3. ELECTRICAL ADJUSTMENTS (TUNER SECTION)

FM SECTION

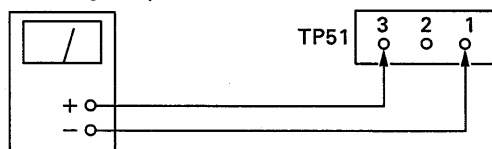
Note : The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.

Setting :



Carrier frequency : 98MHz
 Modulation : 1kHz, 75kHz deviation
 Output level : 1mV (60dBμ)

VOM
 (DC range) 50μA



FM Discriminator Alignment (NULL Check)

FUNCTION switch : TUNER
 BAND switch : FM

Procedure :

1. Supply a 1mV (60dBμ) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust IFT51 for 0V reading on the VOM.

Adjustment Location : MAIN board

Note : FM tuned indication lighting level adjustment should be made after FM discriminator alignment.

FM Tuned Indication Lighting Level Adjustment

FUNCTION switch : TUNER
 BAND switch : FM

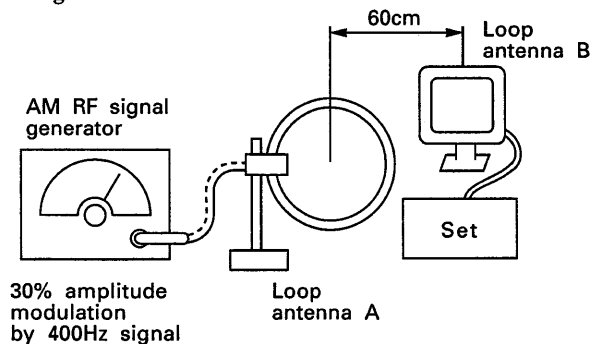
Procedure :

1. Supply a 22.5μV (27dBμ) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV52 so that the **TUNED** light up.
4. Confirm that the **TUNED** light off with FM RF SSG output level set at -3dB.

Adjustment Location : MAIN board

AM SECTION

Setting :



AM Tuned Indication Lighting Level Adjustment

FUNCTION switch : TUNER
 BAND switch : AM

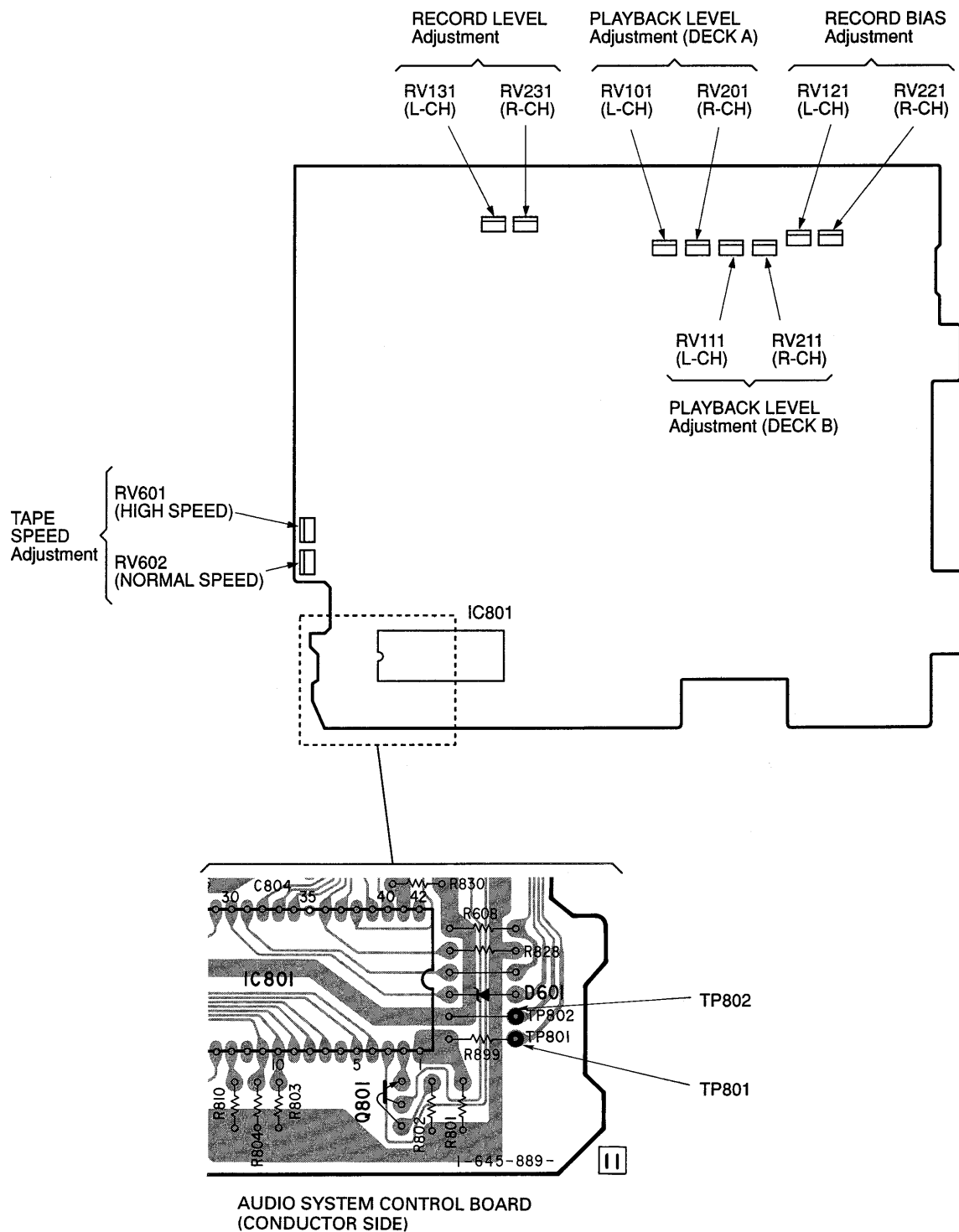
Procedure :

1. Set loop antenna A so that the loop antenna B input level becomes 1mV (60dBμ).
2. Tune the set to 1,490kHz.
3. Adjust the RV51 so that the **TUNED** light up.
4. Confirm that the **TUNED** light off with AM RF SG output level set at -3dB.

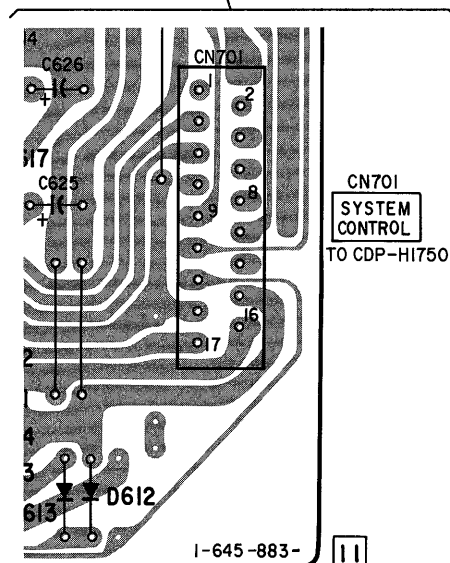
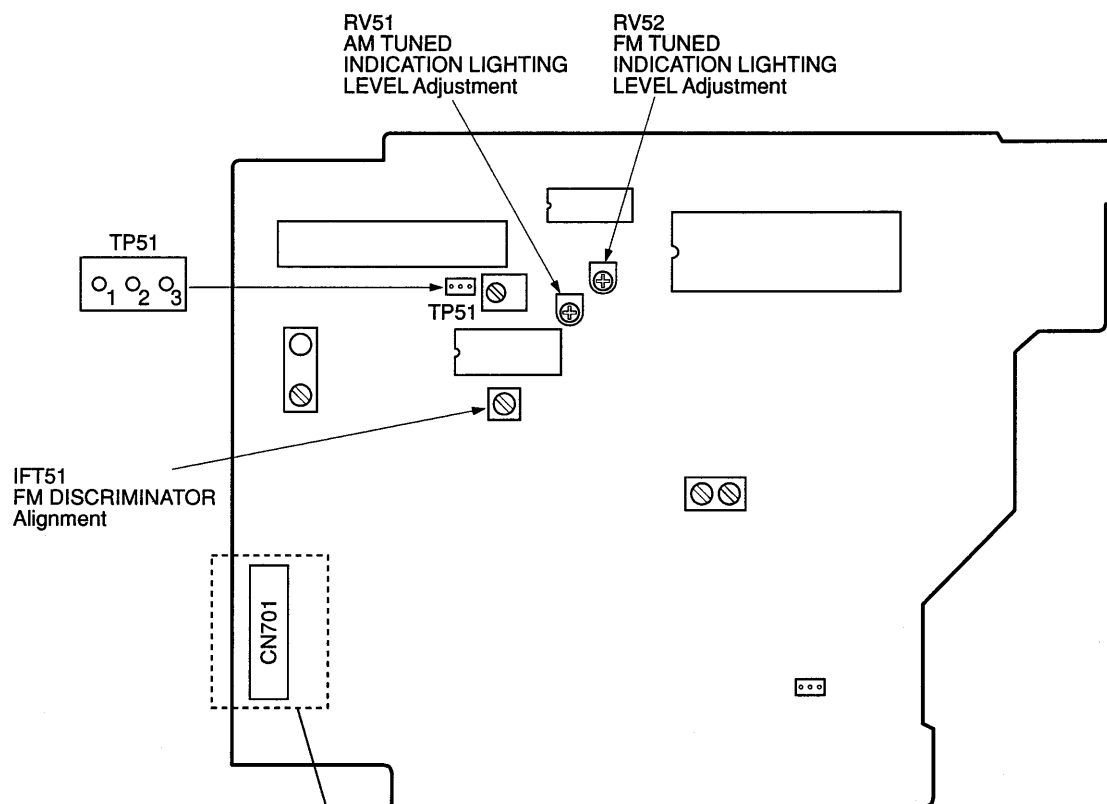
Adjustment Location : MAIN board

Adjustment Location :

**- AUDIO SYSTEM CONTROL BOARD -
(COMPONENT SIDE)**



– MAIN BOARD –
(COMPONENT SIDE)

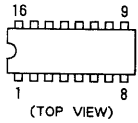


MAIN BOARD
(CONDUCTOR SIDE)

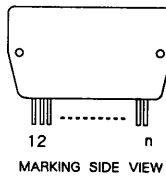
SECTION 4 DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS

CXA1101P
CXA1579P
MC14052BCP
 μ PD4053BC



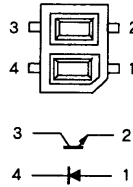
STK4122MK2



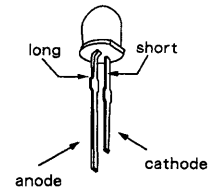
DTA114ES
DTA144ES
DTC114ES
DTC143TS
DTC144ES
2SC2603-EF
2SC2669-OY
2SC3113-AB



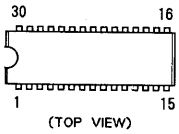
GP-2S09-B



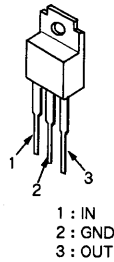
SEL2210S-CD



LA1851N

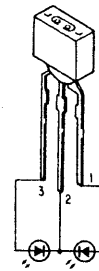


TA7805S

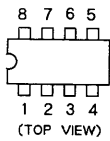


HZS6B1L
HZS6B3L
HZS7C2L
HZS9A2L
RD22ES-B3
11ES2

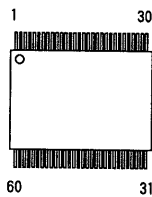
SML1260S
SML1460E
SML1960A



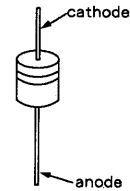
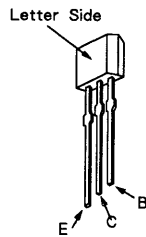
LB1639
M5218AP



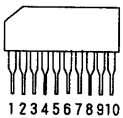
TD62C950RF



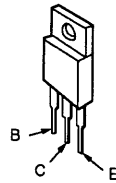
2SA1175-HFE



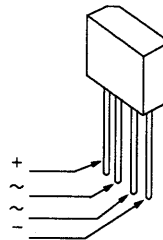
LB1641



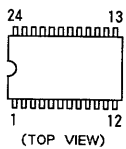
2SB1094-LK
2SD2012



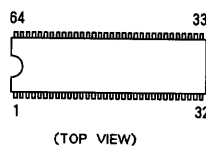
RBA-402



LC7218



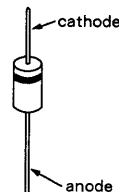
TMP47C870N-V467



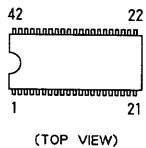
2SC945-P
2SD1387-3



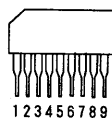
UZL-12L3
1N4148M
10E2N



M37471M2-128SP



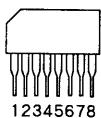
μ PC1330HA-NA
 μ PC4570HA-1



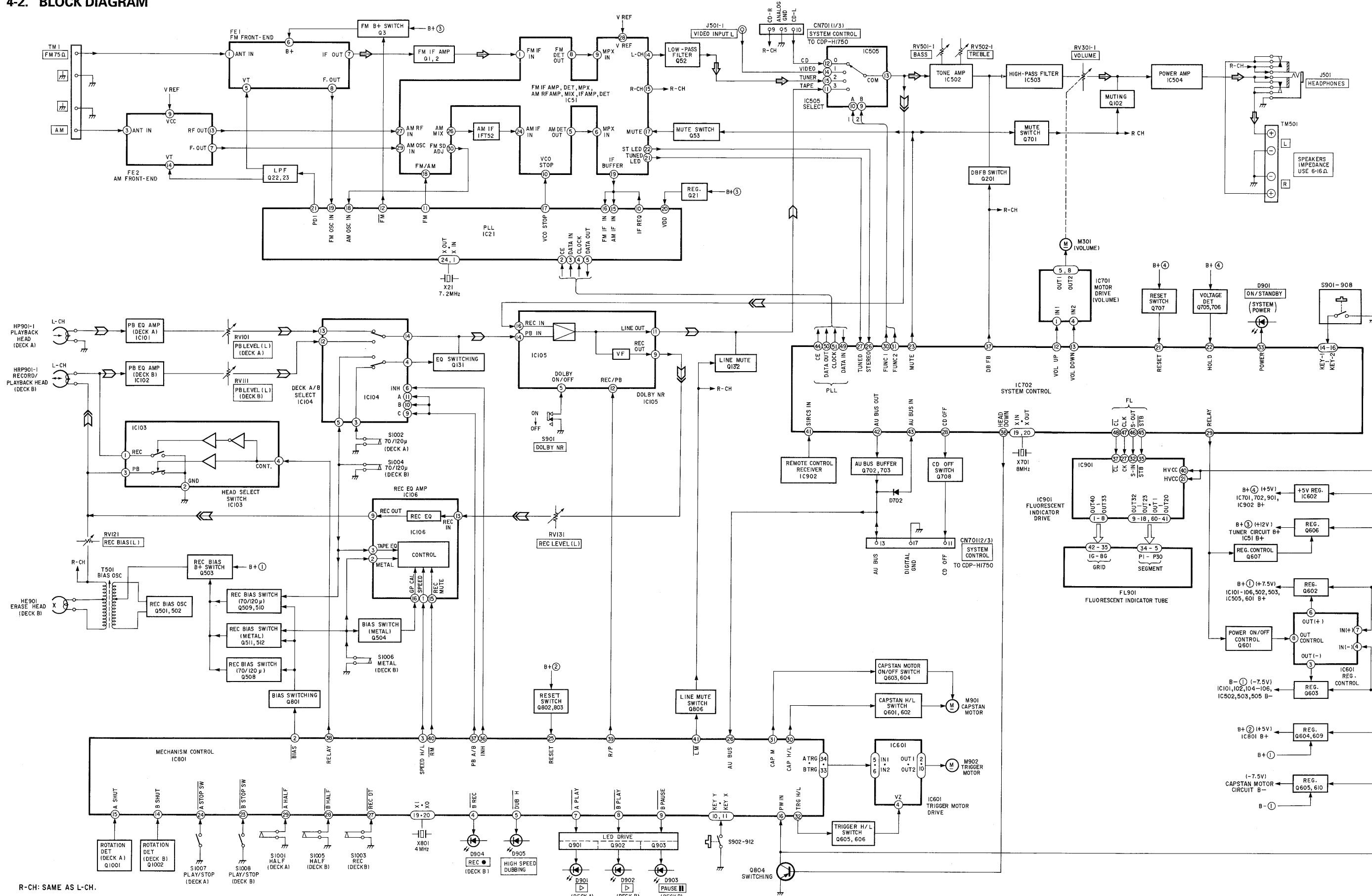
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M5230L-A

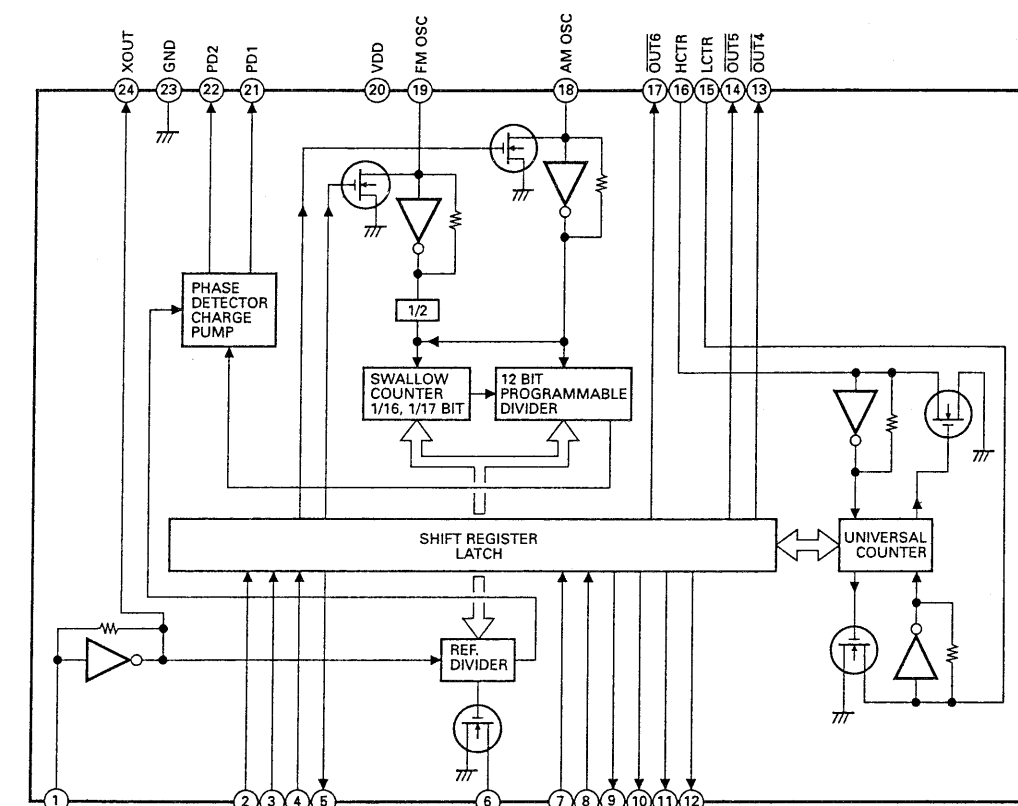


4-2. BLOCK DIAGRAM

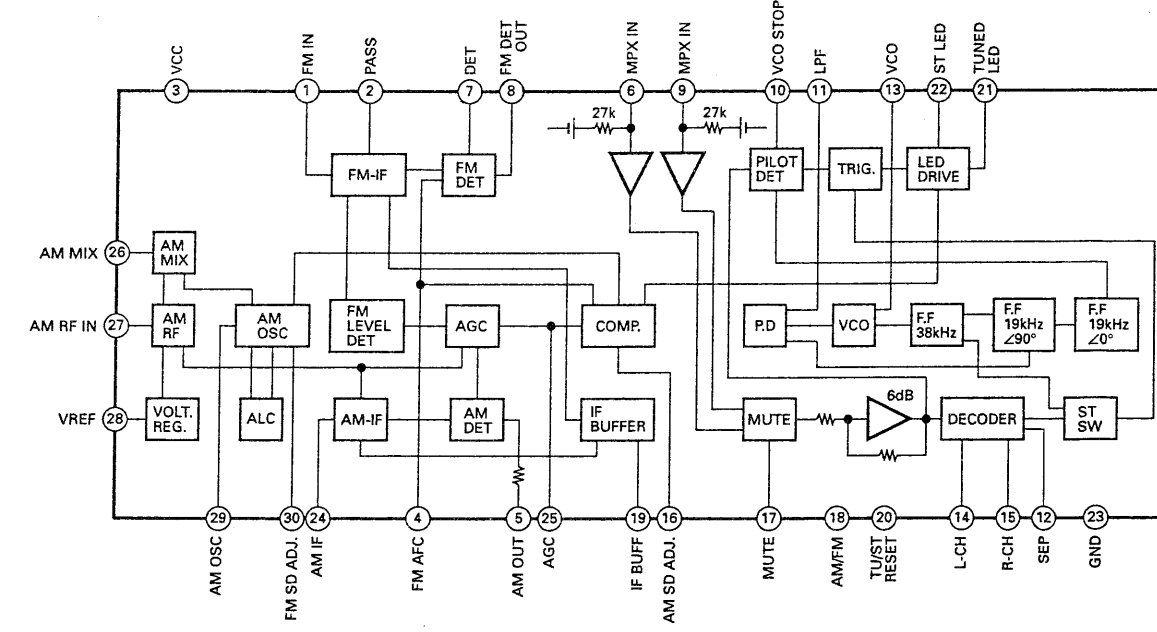


4-3. IC BLOCK DIAGRAMS (MAIN SECTION)

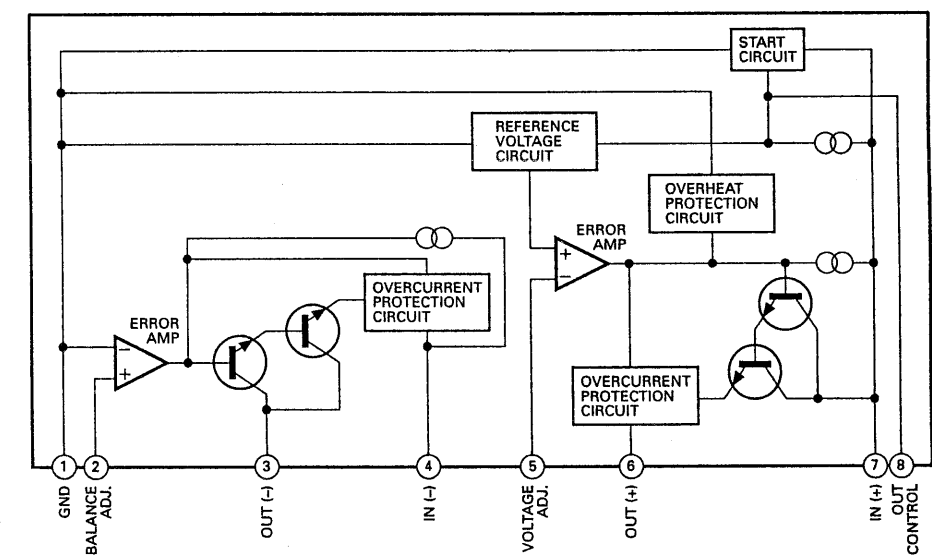
- IC21 LC7218



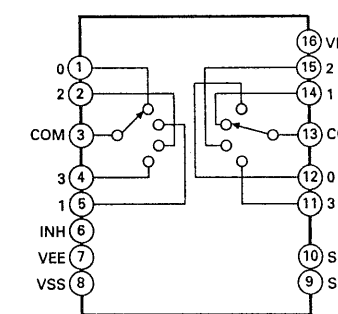
- IC51 LA1851N



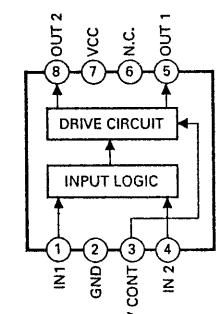
- IC601 M5230L-A



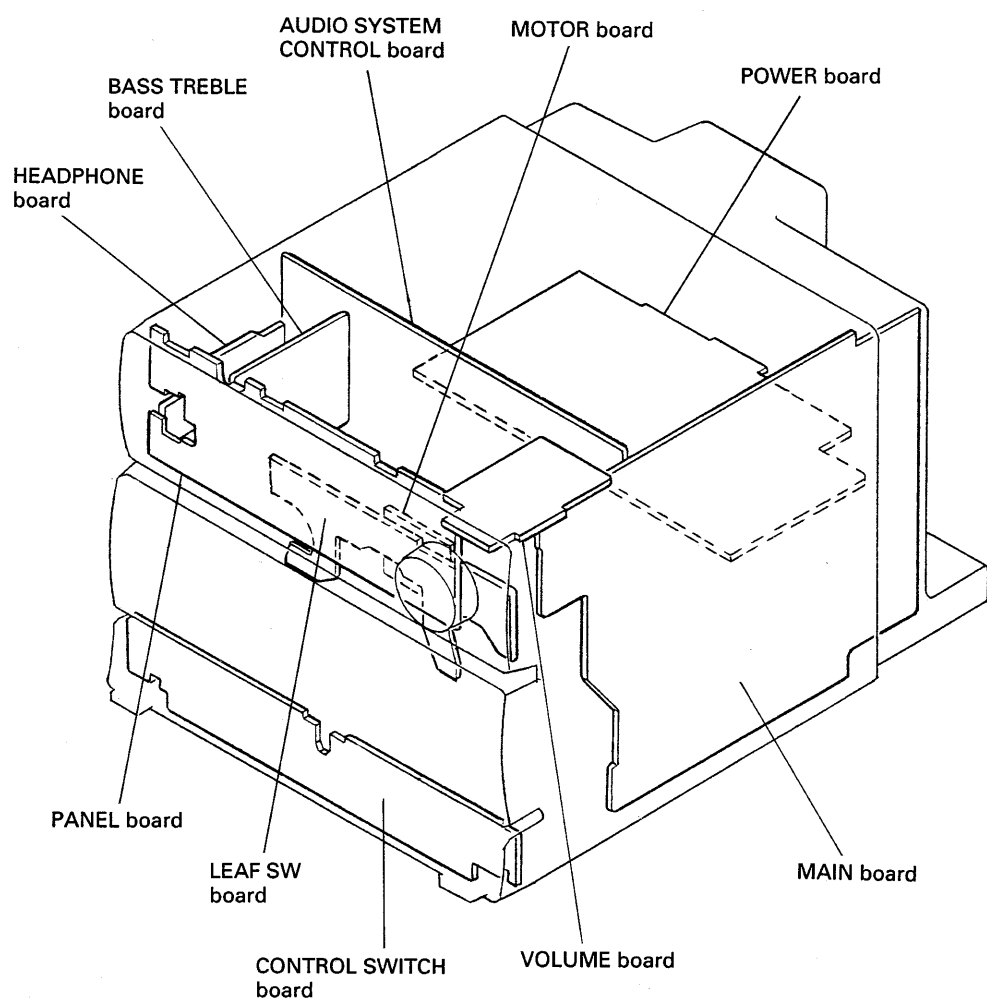
- IC505 MC14052BCP



• IC701 LB1639



4-4. CIRCUIT BOARDS LOCATION



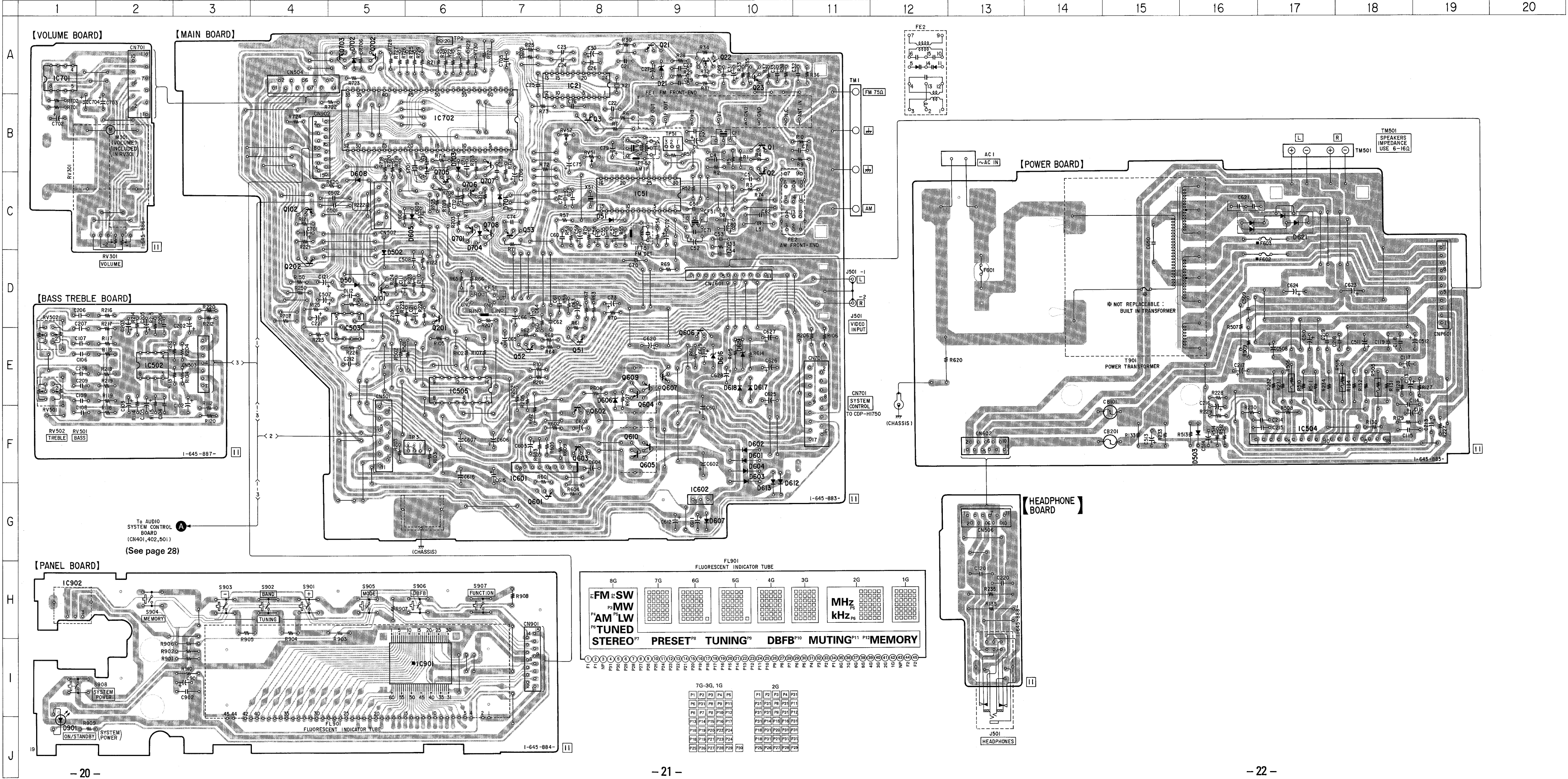
4-5. PRINTED WIRING BOARDS (MAIN SECTION)

• See page 13 for semiconductor lead layouts.

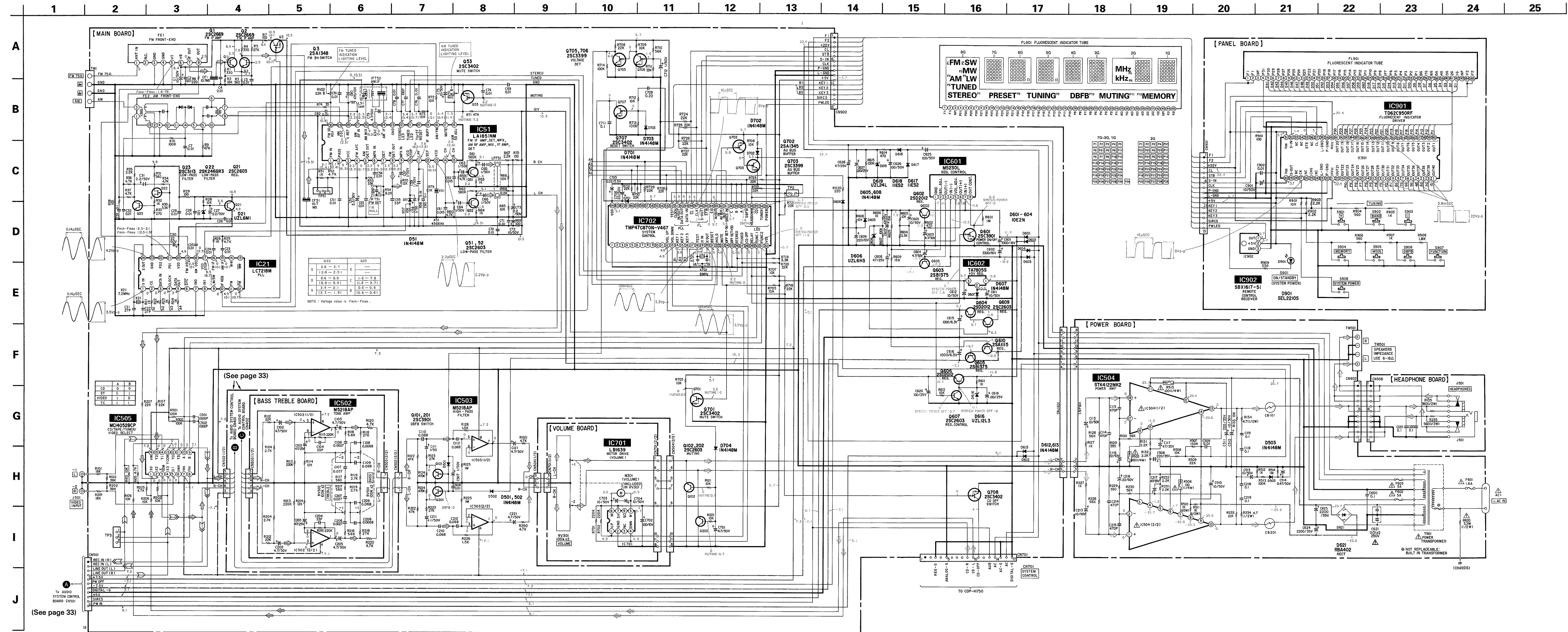
● SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D21	A-9	IC901	I-6
D51	C-8	IC902	H-1
D501	D-5		
D502	D-5	Q1	B-10
D503	F-16	Q2	C-10
		Q3	B-8
D601	F-10	Q21	A-9
D602	F-10	Q22	A-10
D603	G-10		
D604	G-10	Q23	A-10
D605	C-6	Q51	E-8
		Q52	E-7
D606	F-8	Q53	C-7
D607	G-10	Q101	D-5
D608	C-5		
D612	G-11	Q102	C-4
D613	G-11	Q201	E-6
		Q202	D-4
D616	E-10	Q601	G-8
D617	E-10	Q602	F-8
D618	E-10		
D619	E-10	Q603	F-8
D621	C-18	Q604	E-9
		Q605	F-9
D701	C-7	Q606	E-10
D702	A-5	Q610	F-9
D703	B-6	Q701	C-7
D704	C-7	Q702	A-5
D901	J-1	Q703	A-5
IC21	A-8	Q705	C-6
IC51	C-9	Q706	C-7
IC502	E-2	Q707	C-7
IC503	E-5	Q708	C-7
IC504	F-18		
IC505	E-6		
IC601	G-7		
IC602	G-10		
IC701	A-1		
IC702	B-6		

Notes on printed wiring board:
• — : Indicated a lead wire mounted on the component side.
• ■ : Parts mounted on the conductor side.
• - : Indicates side identified with part number.
• ■ : Pattern from the side which enables seeing.



4-6. SCHEMATIC DIAGRAM (MAIN SECTION) • See page 17 for IC block diagrams, 35 for IC (IC702) pin functions.



Notes on schematic diagram:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4W or less unless otherwise noted.
- Δ : Internal component.
- $\square$: Fuse resistor.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- —: B + Line.
- ---: B - Line.
- $\square$: Adjustment for repair.
- Voltage are dc with respect to ground under no-signal (STOP) conditions.
- No mark : FM
- () : AM
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\square$: FM
- $\square$: CD
- $\square$: PB
- $\square$: REC

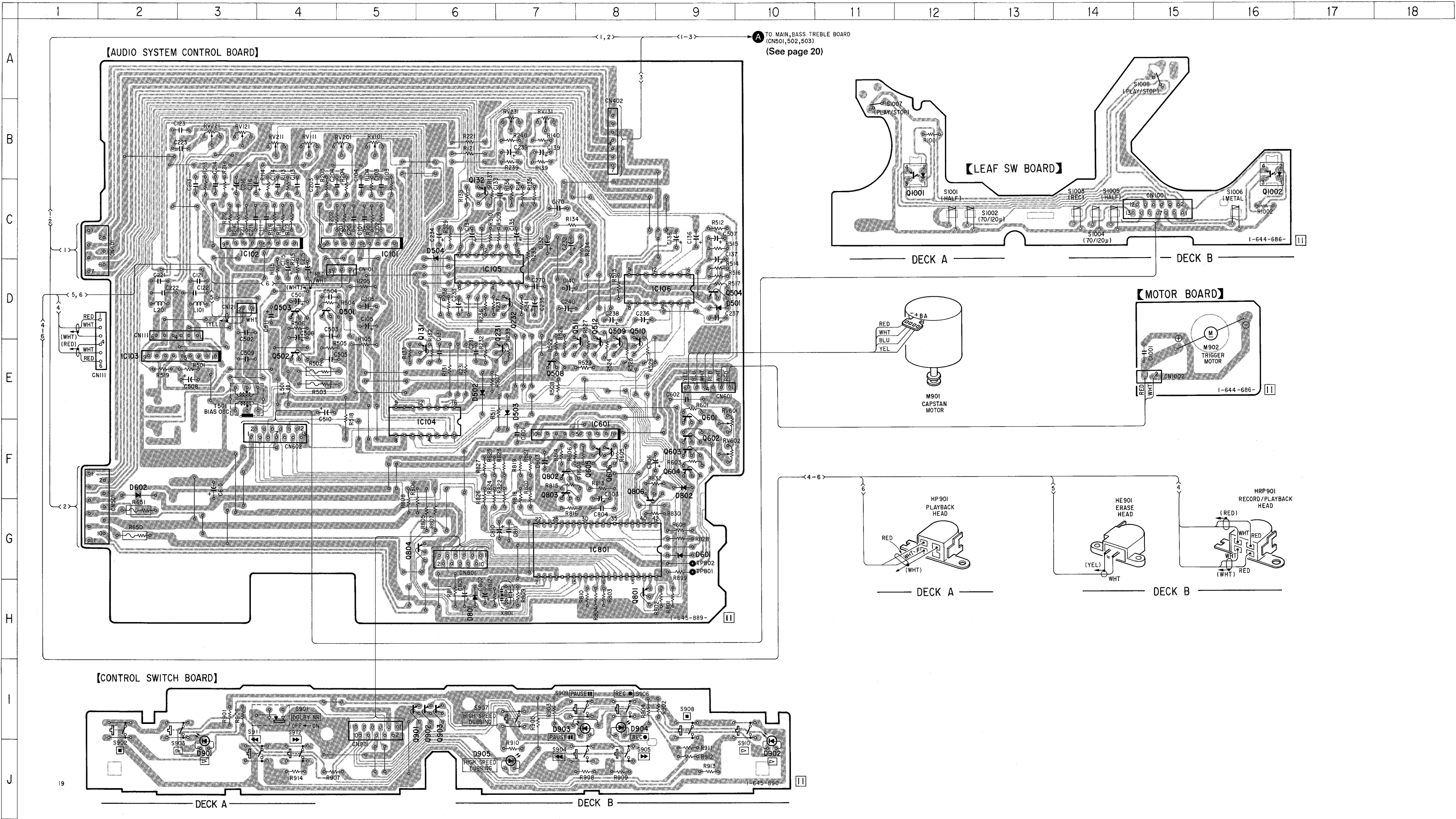
4-7. PRINTED WIRING BOARDS (TC SECTION)

- See page 13 for semiconductor lead layouts, 19 for circuit boards location.

● SEMICONDUCTOR LOCATION

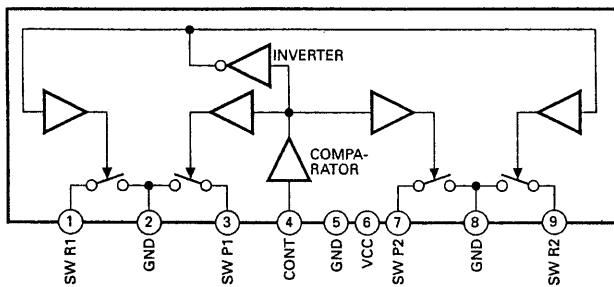
Ref. No.	Location	Ref. No.	Location
D501	D-9	Q502	D-4
D502	E-6	Q503	D-4
D503	E-6	Q504	D-9
D504	C-5	Q508	E-7
D601	G-8	Q509	D-8
D602	F-2	Q510	D-8
D801	G-6	Q511	D-7
D802	F-8	Q512	D-7
D901	I-3	Q601	E-9
D902	I-10	Q602	E-9
D903	I-7	Q603	F-8
D904	I-8	Q604	F-8
D905	I-6	Q605	F-7
		Q606	F-8
IC101	C-5	Q801	G-8
IC102	C-3		
IC103	D-2	Q802	F-7
IC104	E-5	Q803	F-7
IC105	C-6	Q804	G-5
		Q806	F-8
IC106	D-8	Q901	I-5
IC601	E-7	Q902	I-5
IC801	G-7	Q903	I-6
Q131	D-5	Q1001	B-11
Q132	C-6	Q1002	B-16
Q231	D-6		
Q232	D-6		
Q501	D-4		

- Notes on printed wiring board:
- —: Indicated a lead wire mounted on the component side.
 - []: Indicates side identified with part number.
 - []: Pattern from the side which enables seeing.

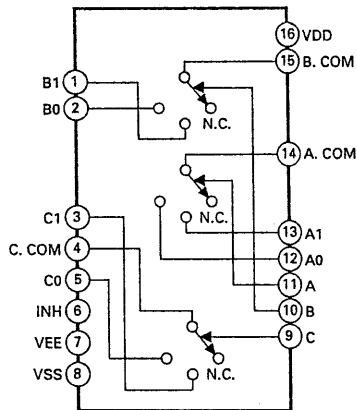


4-8. IC BLOCK DIAGRAMS (TC SECTION)

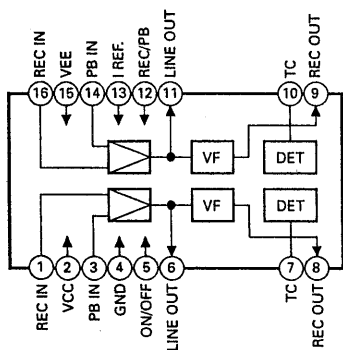
• IC103 μ PC1330HA-NA



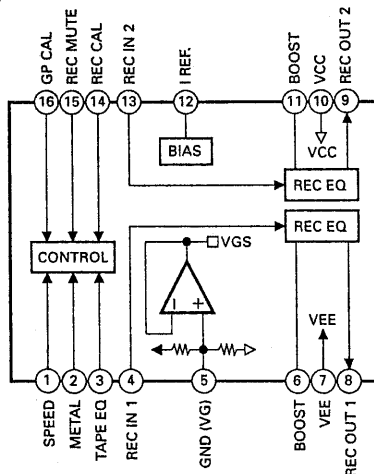
• IC104 μ PD4053BC



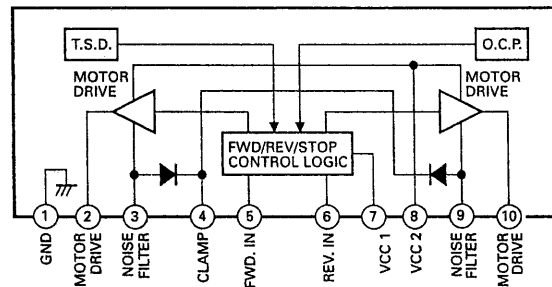
• IC105 CXA1101P

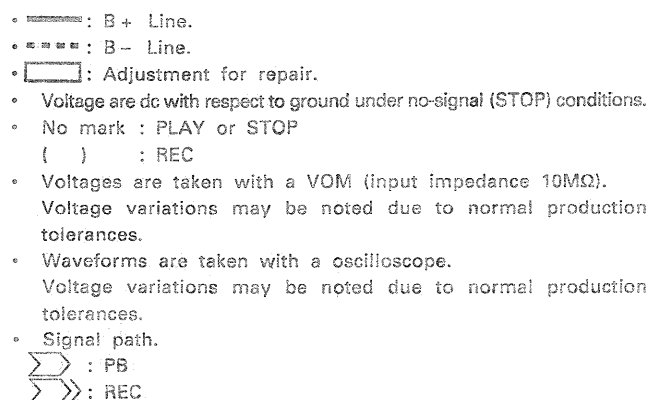


• IC106 CXA1579P



• IC601 LB1641





4-10. IC PIN FUNCTIONS

- IC702 Main System Controller (TMP47C870N-V467)

Controls indication to the FL driver, keying-in, Function select, serial data to PLL and FL driver, and audio bus entry, etc.

Pin No.	Pin Name	I/O	Description															
1	—	—	Not in used (The equipment is fixed at “L”)															
2-11	—	—	Not in used (Open)															
12	VOL UP	O	Motor volume control output (-)															
13	VOL DOWN	O	Motor volume control output (-)															
14-16	KEY 1-3	I	Key signal input															
17	—	—	Not in used (Open)															
18	TEST	—	Not in used (Open)															
19	XIN	I	Oscillator connection terminal (4.19MHz)															
20	XOUT	O	Oscillator connection terminal (4.19MHz)															
21	RESET	I	Reset signal input (Active “L”)															
22	HOLD	I	Voltage detection input (Power failure detection)															
23	MUTE	O	Muting signal output															
24	OFFSET -50	—	Not in used (The equipment is fixed at “L”)															
25	OFFSET +50	—	Not in used (The equipment is fixed at “L”)															
26	STEREO	I	STEREO indication signal input															
27	TUNED	I	TUNED indication signal input															
28	CD OFF	O	CD off port															
29	RELAY	O	System power on/off control signal output															
30	FUNC 1, 2	O	Function (CD, TAPE, TUNER, VIDEO) select signal output. <table><tr><td>ACTIVE</td><td>CD</td><td>TAPE</td><td>TUNER</td><td>VIDEO</td></tr><tr><td>FUNC 1</td><td>L</td><td>H</td><td>L</td><td>H</td></tr><tr><td>FUNC 2</td><td>L</td><td>H</td><td>H</td><td>L</td></tr></table>	ACTIVE	CD	TAPE	TUNER	VIDEO	FUNC 1	L	H	L	H	FUNC 2	L	H	H	L
ACTIVE	CD	TAPE	TUNER	VIDEO														
FUNC 1	L	H	L	H														
FUNC 2	L	H	H	L														
32	VSS	—	Ground terminal															
33	POWER	O	Power indication signal output “L”: POWER ON															
34	TUNER	O	Not in used (OPEN)															
35	CD	O	Not in used (OPEN)															
36	TC OFF	O	TC off signal output															
37	DBFB	O	DBFB indication signal output “L”: DBFB ON															
38-40	A, B, C	—	Not in used (The equipment is fixed at “L”)															
41	SIRCS IN	I	Sircs input terminal															
42	AU BUS OUT	O	AU BUS signal output															
43	AU BUS IN	I	AU BUS signal input															
44	CE	O	Chip enable output to IC901 (FL driver)															
45	STB	O	Strobe signal output to IC901(FL driver)															
46	S-OUT	O	Serial data output to IC901 (FL driver)															
47	CLK	O	Clock signal output to IC901 (FL driver)															
48	CL	O	Clear signal output to IC901 (FL driver)															
49	DATA IN	I	Serial data input from IC21 (PLL)															
50	DATA OUT	O	Serial data output to IC21 (PLL)															
51	CLOCK	O	Clock signal output to IC21 (PLL)															
52	TEST	I	Test mode selector terminal “H”: NORMAL mode “L”: TEST mode															
53-63	—	—	Not in used (OPEN)															
64	VDD	—	Power supply terminal (+5V)															

- IC801 (M37471M2-128SP) MECHANISM CONTROL

The Mechanism deck is controlled.

Pin No.	Pin Name	I/O	Description																					
1	TEST	I	TEST mode selector terminal "H": NORMAL MODE, "L": TEST MODE																					
2	BIAS	O	Bias osc terminal "L": ON																					
3	SPEED H/L	O	NORMAL/HIGH selector for recording equalizer, "H": HIGH, "L": NORMAL																					
4	B REC	O	LED drive terminal for B deck rec mode "L": LIGHT																					
5	DUB H	O	LED drive terminal for HIGH SPEED DUBBING "L": LIGHT																					
6	DUB N	O	LED drive terminal for NORMAL SPEED DUBBING "L": LIGHT (Not in used)																					
7	A PLAY	O	LED drive terminal for A deck play mode "L": LIGHT																					
8	B PLAY	O	LED drive terminal for B deck play mode "L": LIGHT																					
9	B PAUSE	O	LED drive terminal for B deck pause mode "L": LIGHT																					
10	KEY Y	I	<table><tr><td>KEY Y INPUT</td><td>STOP-A</td><td>PLAY-A</td><td>REW-B</td><td>FF-B</td><td>REC-B</td><td>DUB H</td></tr><tr><td>KEY X INPUT</td><td>STOP-B</td><td>PAUSE-B</td><td>PLAY-B</td><td>—</td><td>REW-A</td><td>FF-A</td></tr><tr><td>IC801 Pin ⑩, ⑪</td><td>0V</td><td>0.65V</td><td>1.35V</td><td>2.15V</td><td>2.84V</td><td>3.57V</td></tr></table>	KEY Y INPUT	STOP-A	PLAY-A	REW-B	FF-B	REC-B	DUB H	KEY X INPUT	STOP-B	PAUSE-B	PLAY-B	—	REW-A	FF-A	IC801 Pin ⑩, ⑪	0V	0.65V	1.35V	2.15V	2.84V	3.57V
KEY Y INPUT	STOP-A	PLAY-A		REW-B	FF-B	REC-B	DUB H																	
KEY X INPUT	STOP-B	PAUSE-B		PLAY-B	—	REW-A	FF-A																	
IC801 Pin ⑩, ⑪	0V	0.65V	1.35V	2.15V	2.84V	3.57V																		
11	KEY X																							
12	N.C.	—	Not in used (Open)																					
13	PW SW	I	POWER switch input terminal "H": POWER ON (The equipment is fixed at "H")																					
14	B SHUT	I	S-side reel rotation detection at DECK-B																					
15	A SHUT	I	S-side reel rotation detection at DECK-A																					
16	PW IN (AC)	I	Power in terminal "H": POWER ON																					
17	PW HOLD	O	Power holding output terminal "L": POWER ON HOLDING (Not in used)																					
18	VREF	I	Reference voltage +5V																					
19	XIN	I	Oscillation input terminal (4MHz)																					
20	XOUT	O	Oscillation output terminal																					
21	VSS	—	Ground terminal																					
22	VCC	—	+5V power supply terminal																					
23	B STOP SW	I	Mechanism play mode switch input for DECK-B "H": PLAY																					
24	A STOP SW	I	Mechanism play mode switch input for DECK-A "H": PLAY																					
25	RESET	I	RESET signal input terminal "L": RESET																					
26	AU BUS	I	SIRCS signal input terminal																					
27	REC DT	I	REC claw detection at DECK-B "L": REC CLAW PROOF																					
28	B HALF	I	Half pawl input for DECK-B "L": AVAILABLE																					
29	A HALF	I	Half pawl input for DECK-A "L": AVAILABLE																					
30	CAPM H/L	O	Tape speed selector "L": HIGH SPEED, "H": NORMAL SPEED																					
31	CAPM	O	Capstan motor ON/OFF switch "L": ON																					
32	TRG H/L	O	Clamp voltage output terminal																					
33	B TRG	O	Trigger signal output for DECK-B																					
34	A TRG	O	Trigger signal output for DECK-A																					
35	N.C.	—	Not in used (Open)																					
36	INH	O	Inhibit signal output terminal																					
37	PB A/B	O	DECK-A/DECK-B play selector, at DECK-B "H": DECK-A, "L": DECK-B																					
38	RELAY	O	Recording/play selector at DECK-B "H": RECORDING																					
39	REC/PB	O	Recording/play selector for dolby IC (IC105) "H": PLAY																					
40	R MUTE	O	Recording mute ON/OFF "L": MUTE ON																					
41	L MUTE	O	Line mute ON/OFF "L": MUTE ON																					
42	ER CHECK	O	Error check terminal "L": Checked, "H": Not Checked (Not in used)																					

SECTION 5
EXPLODED VIEWS

NOTE:

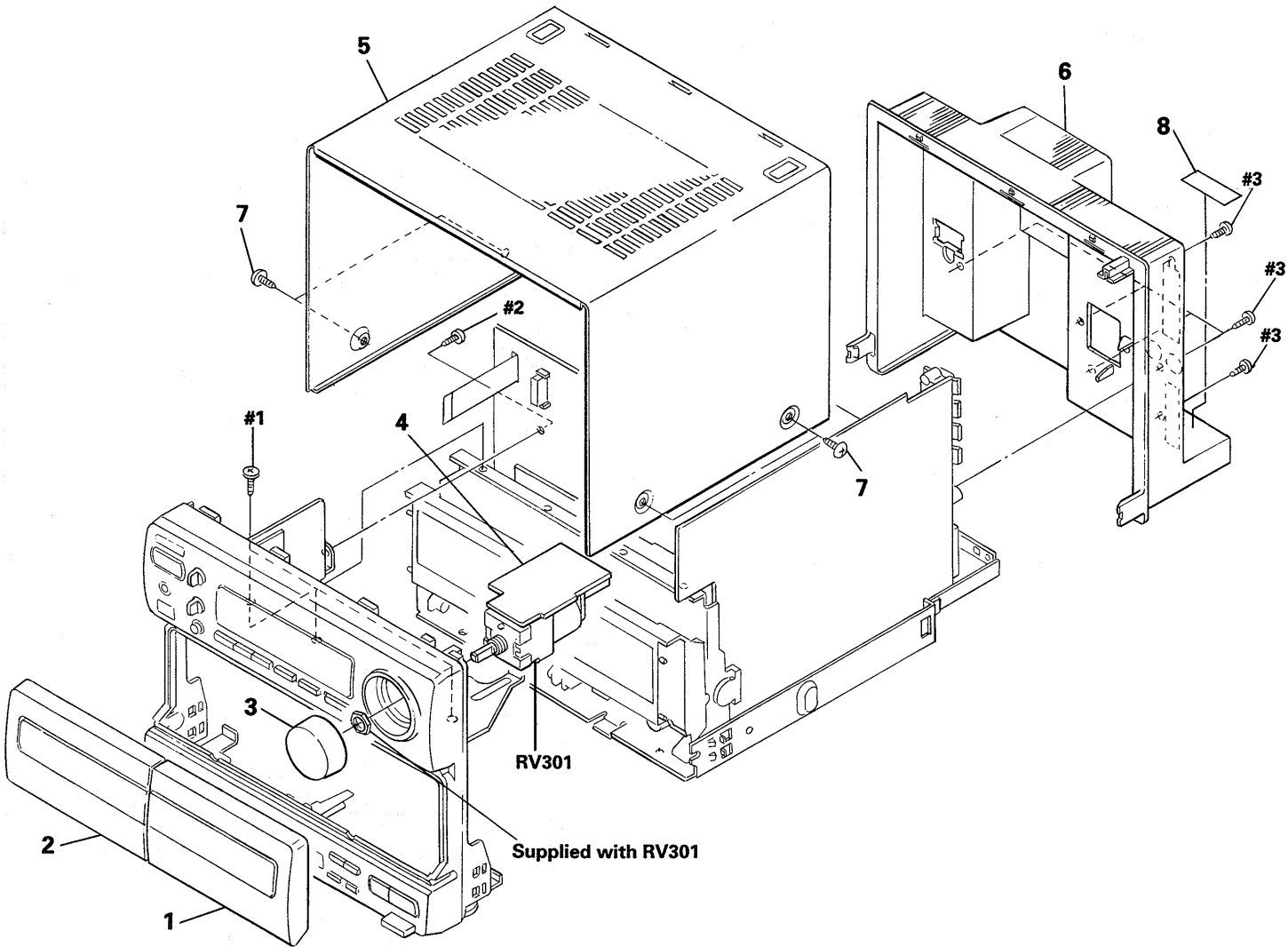
- XX, –X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example:
KNOB,BALANCE(WHITE)...(RED)
↑ ↑
Parts color Cabinet's color

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware(® mark) list is given in the last of this parts list.

The components identified by mark Δ, or dotted line with mark Δ, are critical for safety.
Replace only with part number specified.

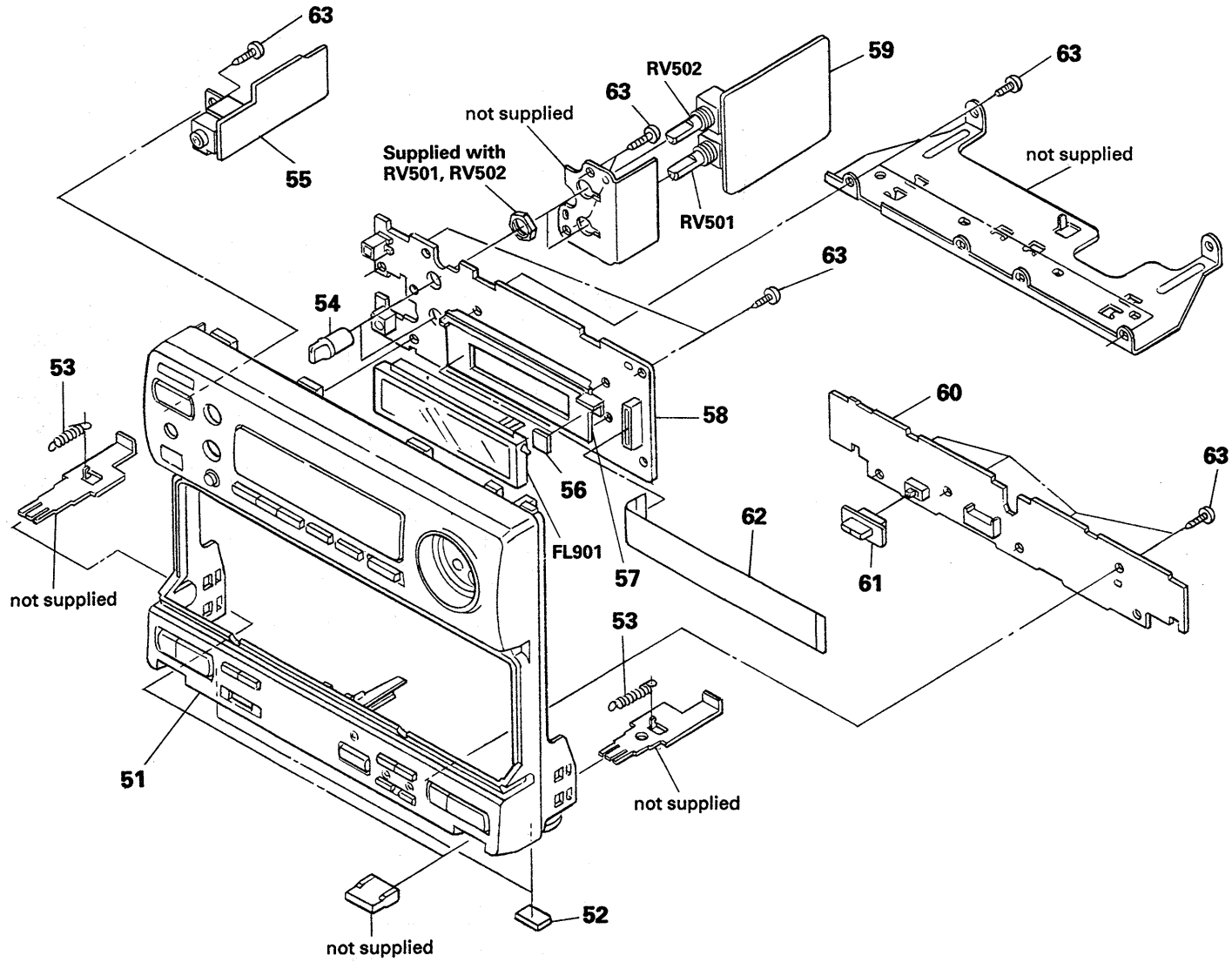
Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. CABINET SECTION



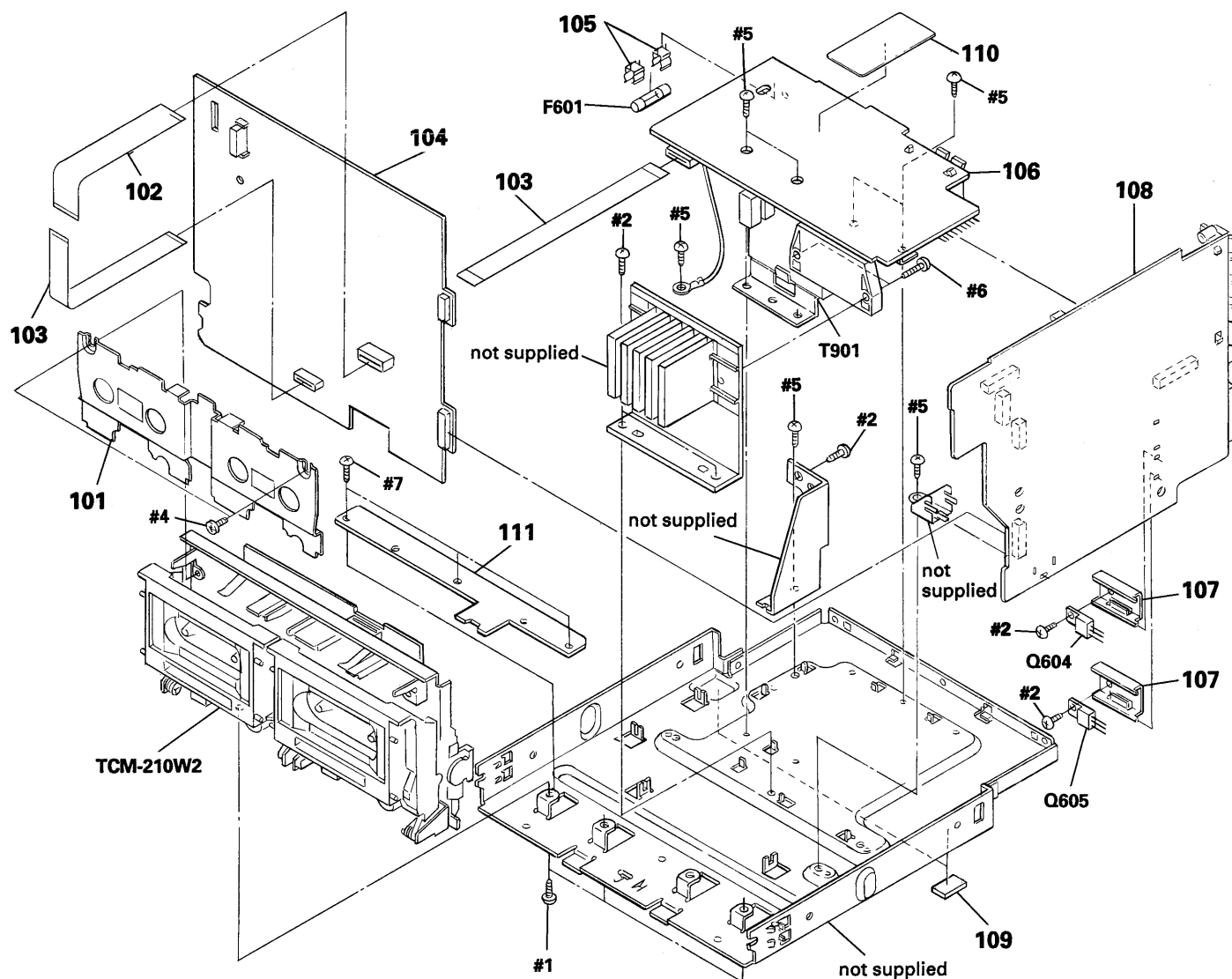
Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
1	X-4943-069-1	LID (B) ASSY, CASSETTE		* 6	4-955-334-01	PANEL, BACK	
2	X-4943-068-1	LID (A) ASSY, CASSETTE		7	3-363-099-01	SCREW (CASE 3 TP2)	
3	X-4943-070-1	KNOB (MAIN VOL.) ASSY		* 8	4-950-766-01	LABEL, FCC DIGITAL DEVICE (US,Mexican)	
* 4	1-645-886-11	VOLUME BOARD			RV301	1-223-254-11 RES, VAR. CARBON 100K/100K (VOLUME)	
* 5	4-953-614-11	CASE					

5-2. FRONT PANEL SECTION



Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
51	X-4943-066-1	PANEL ASSY, FRONT		* 59	A-4356-403-A	BASS TREBLE BOARD, COMPLETE	
52	4-930-336-11	FOOT (FELT)		* 60	A-4356-406-A	CONTROL SW BOARD, COMPLETE	
53	3-489-099-11	SPRING, TENSION		61	4-953-601-01	KNOB, SLIDE	
54	4-955-332-01	KNOB (TRE)		62	1-696-829-11	WIRE (FLAT TYPE) (15 CORE)	
* 55	1-645-888-11	HEADPHONE BOARD		63	4-951-620-01	SCREW (2.6X8), +BVP	
* 56	4-921-941-01	CUSHION (FL)		FL901	1-517-127-11	INDICATOR TUBE, FLUORESCENT	
* 57	4-955-336-01	HOLDER (FL TUBE)		RV501	1-223-255-11	RES, VAR. CARBON 100K/100K (BASS)	
* 58	1-645-884-11	PANEL BOARD		RV502	1-223-255-11	RES, VAR. CARBON 100K/100K (TREBLE)	

5-3. CHASSIS SECTION

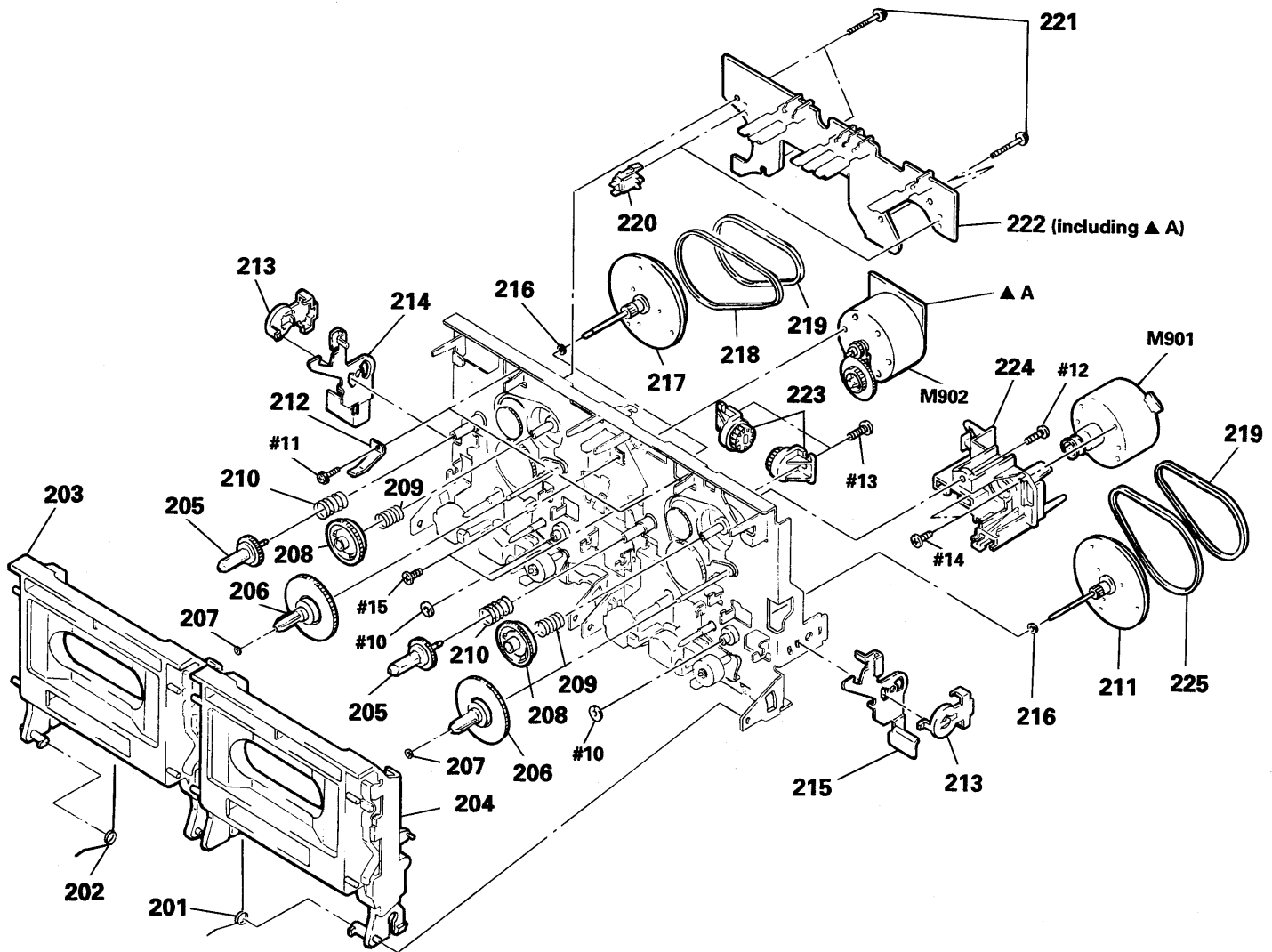


The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

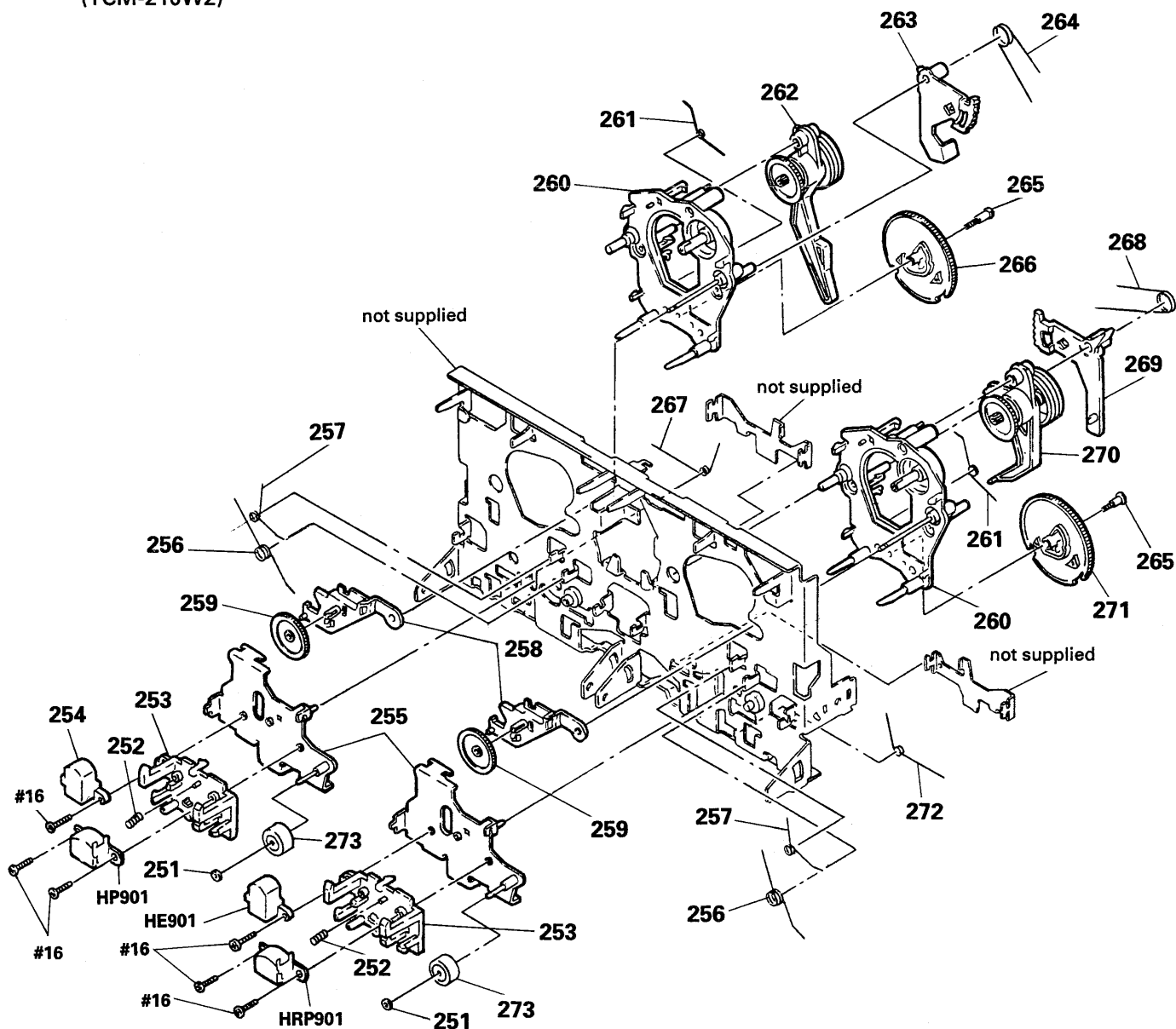
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	4-955-333-01	PLATE (CASSETTE), ORNAMENTAL		109	4-930-336-31	FOOT (FELT)	
102	1-534-517-00	WIRE (FLAT TYPE) (13 CORE)		* 110	3-703-044-26	LABEL, CAUTION	
103	1-575-784-11	WIRE (FLAT TYPE) (11 CORE)		* 111	1-647-172-11	SHIELD BOARD	
* 104	A-4356-405-A	AUDIO SYSTEM CONTROL BOARD, COMPLETE		Δ F601	1-532-742-11	FUSE, GLASS TUBE (1.6A)	
* 105	1-533-213-31	HOLDER, FUSE		Q604	8-729-209-15	TRANSISTOR 2SD2012	
* 106	A-4356-401-A	POWER BOARD, COMPLETE		Q605	8-729-141-83	TRANSISTOR 2SB1094-LK	
* 107	3-309-144-21	HEAT SINK		Δ T901	1-423-391-11	TRANSFORMER, POWER (US, Mexican)	
* 108	A-4356-399-A	MAIN BOARD, COMPLETE		Δ T901	1-423-430-11	TRANSFORMER, POWER (Canadian)	

5-4. MECHANISM SECTION-1 (TCM-210W2)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
201	3-381-788-01	SPRING (LOADING B), TORSION		* 215	3-367-710-01	LEVER (LOCK LEVER R)	
202	3-381-787-01	SPRING (LOADING A), TORSION		216	3-701-437-21	WASHER	
203	X-3365-440-1	HOLDER (A) ASSY, CASSETTE		217	X-3365-437-1	FLYWHEEL (A) ASSYLAY	
204	X-3365-441-1	HOLDER (B) ASSY, CASSETTE		218	3-382-859-01	BELT (CAPSTAN A)	
205	3-382-524-01	GEAR (S SIDE REEL)		219	4-928-951-01	BELT (CAPSTAN)	
206	X-3365-559-1	TABLE (T) ASSY, REEL		* 220	3-381-776-01	HOLDER (LED)	
207	3-383-798-01	WASHER, STOPPER		221	3-355-801-01	SCREW (BTP 2X18)	
208	X-3365-447-1	GEAR (FF) ASSY		* 222	1-644-686-11	LEAF SW BOARD	
209	3-382-078-01	SPRING (FF), COMPRESSION		223	4-919-393-31	DAMPER	
210	3-358-208-01	SPRING (SUPPLY), COMPRESSION		224	3-381-777-01	BRACKET	
211	X-3365-438-1	FLYWHEEL (B) ASSY		225	3-382-860-01	BELT (CAPSTAN B)	
212	3-382-929-01	SPRING (CASSETTE DETENT), LEAF		M901	X-3362-377-1	MOTOR (WH) ASSY (CAPSTAN)	
213	3-354-957-01	JOINT (LOCK LEVER)		M902	A-2004-136-A	MOTOR ASSY, DC (TRIGGER)	
* 214	3-367-709-01	LEVER (LOCK LEVER L)					

5-5. MECHANISM SECTION-2 (TCM-210W2)



Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
251	3-669-465-00	WASHER (1.5), STOPPER		264	3-382-074-01	SPRING (TRIGGER A), TORSION	
252	3-343-484-01	SPRING, COMPRESSION		265	3-381-810-01	SCREW, STEP	
253	3-381-778-01	HOLDER (HEAD)		266	3-381-779-01	CAM (A)	
254	3-319-716-01	GUIDE, TAPE		267	3-383-056-02	SPRING (SLIDER A), TORSION	
255	X-3365-814-1	SLIDER (HEAD) ASSY		268	3-382-075-01	SPRING (TRIGGER B), TORSION	
256	3-382-076-01	SPRING (HEAD), TORSION		269	3-381-782-01	LEVER (TRIGGER B)	
257	3-382-077-01	SPRING (TU), TORSION		270	X-3365-445-1	LEVER (FR ARM B) ASSY	
258	3-381-785-01	LEVER (TU)		271	3-381-780-01	CAM (B)	
* 259	3-358-284-01	GEAR (TU GEAR)		272	3-383-057-02	SPRING (SLIDER B), TORSION	
* 260	X-3365-443-1	CHASSIS (M) ASSY		273	3-355-808-11	PINCH ROLLER	
261	3-383-498-01	SPRING (CAM), TORSION		HE901	1-543-673-11	HEAD, MAGNETIC (ERASE)	
262	X-3365-444-1	LEVER (FR ARM A) ASSY		HP901	1-543-940-11	HEAD, MAGNETIC (PLAYBACK)	
263	3-381-781-01	LEVER (TRIGGER A)		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB)	

SECTION 6

ELECTRICAL PARTS LIST

LEAF SW

MAIN

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA... : μ A..., uPA... : μ PA...,
uPB... : μ PB..., uPC... : μ PC...,
uPD... : μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
*	1-644-686-11	LEAF SW BOARD *****		C21	1-102-961-00	CERAMIC 27PF 5% 50V	
		< CAPACITOR >		C22	1-102-961-00	CERAMIC 27PF 5% 50V	
C1001	1-164-159-11	CERAMIC 0.1uF 50V		C23	1-162-306-11	CERAMIC 0.01uF 20% 16V	
		< CONNECTOR >		C24	1-162-306-11	CERAMIC 0.01uF 20% 16V	
* CN1001	1-568-856-11	SOCKET, CONNECTOR 13P		C25	1-162-306-11	CERAMIC 0.01uF 20% 16V	
* CN1002	1-564-517-11	PLUG, CONNECTOR 2P		C26	1-162-306-11	CERAMIC 0.01uF 20% 16V	
		< TRANSISTOR >		C27	1-124-925-11	ELECT 2.2uF 20% 100V	
Q1001	8-719-939-11	DIODE GP-2S09-B		C28	1-162-306-11	CERAMIC 0.01uF 20% 16V	
Q1002	8-719-939-11	DIODE GP-2S09-B		C29	1-162-306-11	CERAMIC 0.01uF 20% 16V	
		< RESISTOR >		C30	1-126-233-11	ELECT 22uF 20% 50V	
R1001	1-249-409-11	CARBON 220 5% 1/4W		C31	1-124-925-11	ELECT 2.2uF 20% 100V	
R1002	1-249-409-11	CARBON 220 5% 1/4W		C32	1-162-306-11	CERAMIC 0.01uF 20% 16V	
		< SWITCH >		C33	1-136-165-00	FILM 0.1uF 5% 50V	
S1001	1-572-202-11	SWITCH, LEAF (HALF DECK-A)		C51	1-162-306-11	CERAMIC 0.01uF 20% 16V	
S1002	1-572-125-11	SWITCH, LEAF (70/120u DECK-A)		C52	1-123-382-00	ELECT 3.3uF 20% 100V	
S1003	1-572-125-11	SWITCH, LEAF (REC DECK-B)		C53	1-162-306-11	CERAMIC 0.01uF 20% 16V	
S1004	1-572-125-11	SWITCH, LEAF (70/120u DECK-B)		C54	1-162-306-11	CERAMIC 0.01uF 20% 16V	
S1005	1-572-202-11	SWITCH, LEAF (HALF DECK-B)		C55	1-102-963-00	CERAMIC 33PF 5% 50V	
S1006	1-572-125-11	SWITCH, LEAF (METAL DECK-B)		C57	1-124-903-11	ELECT 1uF 20% 50V	
S1007	1-692-193-11	SWITCH, PUSH (1 KEY) (PLAY/STOP DECK-A)		C58	1-124-903-11	ELECT 1uF 20% 50V	
S1008	1-692-193-11	SWITCH, PUSH (1 KEY) (PLAY/STOP DECK-B)		C59	1-124-903-11	ELECT 1uF 20% 50V	
*****				C60	1-124-463-00	ELECT 0.1uF 20% 50V	
*	A-4356-399-A	MAIN BOARD, COMPLETE *****		C61	1-136-155-00	FILM 0.015uF 5% 50V	
		< CAPACITOR >		C62	1-136-155-00	FILM 0.015uF 5% 50V	
C1	1-124-907-11	ELECT 10uF 20% 50V		C63	1-124-903-11	ELECT 1uF 20% 50V	
C2	1-162-306-11	CERAMIC 0.01uF 20% 16V		C64	1-124-903-11	ELECT 1uF 20% 50V	
C4	1-162-306-11	CERAMIC 0.01uF 20% 16V		C65	1-124-903-11	ELECT 1uF 20% 50V	
C5	1-162-306-11	CERAMIC 0.01uF 20% 16V		C66	1-124-903-11	ELECT 1uF 20% 50V	
C7	1-102-129-00	CERAMIC 10000pF 10% 50V		C69	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C70	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C71	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C72	1-124-907-11	ELECT 10uF 20% 50V	
				C73	1-124-925-11	ELECT 2.2uF 20% 100V	
				C74	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C75	1-124-907-11	ELECT 10uF 20% 50V	
				C76	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C77	1-162-282-31	CERAMIC 100PF 10% 50V	
				C78	1-162-306-11	CERAMIC 0.01uF 20% 16V	

MAIN

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
C79	1-124-927-11	ELECT	4.7uF 20% 100V	* CN902	1-568-834-11	SOCKET, CONNECTOR 15P	
C80	1-124-472-11	ELECT	470uF 20% 10V	* CNJ601	1-695-893-11	HOUSING, CONNECTOR(PC BOARD)11P	
C81	1-162-306-11	CERAMIC	0.01uF 20% 16V			< DIODE >	
C82	1-162-306-11	CERAMIC	0.01uF 20% 16V	D21	8-719-933-36	DIODE	HZS6B1L
C110	1-136-163-00	FILM	0.068uF 5% 50V	D51	8-719-987-63	DIODE	1N4148M
C111	1-124-903-11	ELECT	1uF 20% 50V	D501	8-719-987-63	DIODE	1N4148M
C112	1-136-163-00	FILM	0.068uF 5% 50V	D502	8-719-987-63	DIODE	1N4148M
C121	1-124-927-11	ELECT	4.7uF 20% 100V	D601	8-719-200-77	DIODE	10E2N
C210	1-136-163-00	FILM	0.068uF 5% 50V	D602	8-719-200-77	DIODE	10E2N
C211	1-124-903-11	ELECT	1uF 20% 50V	D603	8-719-200-77	DIODE	10E2N
C212	1-136-163-00	FILM	0.068uF 5% 50V	D604	8-719-200-77	DIODE	10E2N
C221	1-124-927-11	ELECT	4.7uF 20% 100V	D605	8-719-987-63	DIODE	1N4148M
C501	1-162-294-31	CERAMIC	0.001uF 10% 50V	D606	8-719-933-38	DIODE	HZS6B3L
C502	1-162-294-31	CERAMIC	0.001uF 10% 50V	D607	8-719-987-63	DIODE	1N4148M
C507	1-124-903-11	ELECT	1uF 20% 50V	D608	8-719-987-63	DIODE	1N4148M
C508	1-136-153-00	FILM	0.01uF 5% 50V	D612	8-719-987-63	DIODE	1N4148M
C601	1-124-887-00	ELECT	3300uF 20% 16V	D613	8-719-987-63	DIODE	1N4148M
C602	1-124-887-00	ELECT	3300uF 20% 16V	D616	8-719-001-67	DIODE	UZL-12L3
C603	1-124-927-11	ELECT	4.7uF 20% 100V	D617	8-719-200-82	DIODE	11ES2
C604	1-124-927-11	ELECT	4.7uF 20% 100V	D618	8-719-200-82	DIODE	11ES2
C605	1-124-907-11	ELECT	10uF 20% 50V	D619	8-719-110-58	DIODE	RD22ES-B3
C606	1-124-477-11	ELECT	47uF 20% 25V	D701	8-719-987-63	DIODE	1N4148M
C607	1-124-477-11	ELECT	47uF 20% 25V	D702	8-719-987-63	DIODE	1N4148M
C609	1-126-176-11	ELECT	220uF 20% 10V	D703	8-719-987-63	DIODE	1N4148M
C611	1-124-907-11	ELECT	10uF 20% 50V	D704	8-719-987-63	DIODE	1N4148M
C612	1-124-907-11	ELECT	10uF 20% 50V			< FRONTEND >	
C615	1-124-471-00	ELECT	1000uF 20% 6.3V	FE1	1-465-673-11	FRONTEND (2 BAND) (FM)	
C616	1-124-471-00	ELECT	1000uF 20% 6.3V	FE2	1-236-461-11	ENCAPSULATED COMPONENT (AM)	
C619	1-124-478-11	ELECT	100uF 20% 25V			< IC >	
C620	1-124-478-11	ELECT	100uF 20% 25V	IC21	8-759-820-91	IC	LC7218
C625	1-124-122-11	ELECT	100uF 20% 50V	IC51	8-759-821-45	IC	LA1851N
C626	1-124-122-11	ELECT	100uF 20% 50V	IC503	8-759-634-51	IC	M5218AP
C627	1-124-120-11	ELECT	220uF 20% 25V	IC505	8-759-000-48	IC	MC14052BCP
C628	1-124-477-11	ELECT	47uF 20% 25V	IC601	8-759-602-66	IC	M5230L-A
C701	1-124-927-11	ELECT	4.7uF 20% 100V	IC602	8-759-231-53	IC	TA7805S
C705	1-125-507-11	CAP, DOUBLE LAYEYERS	0.22F 5.5V	IC702	8-759-093-87	IC	TMP47C870N-V467
C706	1-126-233-11	ELECT	22uF 20% 50V			< IFT >	
C709	1-136-169-00	FILM	0.22uF 5% 50V	IFT51	1-404-807-11	TRANSFORMER, DISCRIMINATOR (FM DET)	
C711	1-136-165-00	FILM	0.1uF 5% 50V	IFT52	1-404-713-11	TRANSFORMER, IF (AM IF)	
C712	1-124-903-11	ELECT	1uF 20% 50V			< JACK >	
		< FILTER >		* J501	1-580-691-21	JACK, PIN 2P (VIDEO INPUT)	
CF1	1-567-389-11	FILTER, CERAMIC (10.7MHz)				< COIL >	
CF51	1-567-389-11	FILTER, CERAMIC (10.7MHz)		L51	1-410-171-11	INDUCTOR	1mH
		< CONNECTOR >					
CN501	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P					
CN502	1-695-087-11	PIN, CONNECTOR (PC BOARD) 7P					
CN504	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P					
* CN701	1-569-624-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL)					

When indicating parts by reference number, please include the board name.

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< FILTER >				R26	1-249-417-11	CARBON	1K 5% 1/4W
LPF51	1-235-221-00	FILTER, LOW-PASS		R28	1-249-429-11	CARBON	10K 5% 1/4W
< TRANSISTOR >				R29	1-249-405-11	CARBON	100 5% 1/4W
Q1	8-729-230-XX	TRANSISTOR	2SC2669-OY	R30	1-249-423-11	CARBON	3.3K 5% 1/4W
Q2	8-729-230-XX	TRANSISTOR	2SC2669-OY	R31	1-249-414-11	CARBON	560 5% 1/4W
Q3	8-729-900-61	TRANSISTOR	DTA114ES	R32	1-249-417-11	CARBON	1K 5% 1/4W
Q21	8-729-620-05	TRANSISTOR	2SC2603-EF	R33	1-249-410-11	CARBON	270 5% 1/4W
Q22	8-729-202-67	TRANSISTOR	2SK246-GR3	R34	1-249-425-11	CARBON	4.7K 5% 1/4W
Q23	8-729-230-93	TRANSISTOR	2SC3113-AB	R35	1-249-421-11	CARBON	2.2K 5% 1/4W
Q51	8-729-620-05	TRANSISTOR	2SC2603-EF	R36	1-249-425-11	CARBON	4.7K 5% 1/4W
Q52	8-729-620-05	TRANSISTOR	2SC2603-EF	R37	1-249-425-11	CARBON	4.7K 5% 1/4W
Q53	8-729-900-80	TRANSISTOR	DTC114ES	R38	1-249-405-11	CARBON	100 5% 1/4W
Q101	8-729-900-74	TRANSISTOR	DTC143TS	R51	1-249-417-11	CARBON	1K 5% 1/4W
Q102	8-729-620-05	TRANSISTOR	2SC2603-EF	R52	1-249-425-11	CARBON	4.7K 5% 1/4W
Q201	8-729-900-74	TRANSISTOR	DTC143TS	R53	1-249-435-11	CARBON	33K 5% 1/4W
Q202	8-729-620-05	TRANSISTOR	2SC2603-EF	R54	1-249-428-11	CARBON	8.2K 5% 1/4W
Q601	8-729-900-74	TRANSISTOR	DTC143TS	R55	1-249-430-11	CARBON	12K 5% 1/4W
Q602	8-729-209-15	TRANSISTOR	2SD2012	R57	1-249-429-11	CARBON	10K 5% 1/4W
Q603	8-729-141-83	TRANSISTOR	2SB1094-LK	R58	1-247-848-11	CARBON	5.1K 5% 1/4W
Q604	8-729-209-15	TRANSISTOR	2SD2012	R59	1-249-425-11	CARBON	4.7K 5% 1/4W
Q605	8-729-141-83	TRANSISTOR	2SB1094-LK	R60	1-249-425-11	CARBON	4.7K 5% 1/4W
Q606	8-729-209-15	TRANSISTOR	2SD2012	R61	1-247-897-11	CARBON	560K 5% 1/4W
Q607	8-729-620-05	TRANSISTOR	2SC2603-EF	R62	1-247-897-11	CARBON	560K 5% 1/4W
Q609	8-729-620-05	TRANSISTOR	2SC2603-EF	R63	1-249-417-11	CARBON	1K 5% 1/4W
Q610	8-729-119-76	TRANSISTOR	2SA1175-HFE	R64	1-249-417-11	CARBON	1K 5% 1/4W
Q701	8-729-900-80	TRANSISTOR	DTC114ES	R65	1-249-429-11	CARBON	10K 5% 1/4W
Q702	8-729-900-65	TRANSISTOR	DTA144ES	R66	1-249-429-11	CARBON	10K 5% 1/4W
Q703	8-729-900-89	TRANSISTOR	DTC144ES	R67	1-249-421-11	CARBON	2.2K 5% 1/4W
Q705	8-729-900-89	TRANSISTOR	DTC144ES	R68	1-249-421-11	CARBON	2.2K 5% 1/4W
Q706	8-729-900-89	TRANSISTOR	DTC144ES	R69	1-249-405-11	CARBON	100 5% 1/4W
Q707	8-729-900-80	TRANSISTOR	DTC114ES	R70	1-249-405-11	CARBON	100 5% 1/4W
Q708	8-729-900-80	TRANSISTOR	DTC114ES	R71	1-249-437-11	CARBON	47K 5% 1/4W
< RESISTOR >				R72	1-249-429-11	CARBON	10K 5% 1/4W
R1	1-249-411-11	CARBON	330 5% 1/4W	R73	1-249-429-11	CARBON	10K 5% 1/4W
R2	1-249-432-11	CARBON	18K 5% 1/4W	R74	1-249-399-11	CARBON	33 5% 1/4W
R3	1-249-414-11	CARBON	560 5% 1/4W	R79	1-249-417-11	CARBON	1K 5% 1/4W
R4	1-249-411-11	CARBON	330 5% 1/4W	R101	1-249-432-11	CARBON	18K 5% 1/4W
R5	1-249-434-11	CARBON	27K 5% 1/4W	R102	1-249-436-11	CARBON	39K 5% 1/4W
R6	1-249-409-11	CARBON	220 5% 1/4W	R103	1-249-429-11	CARBON	10K 5% 1/4W
R7	1-249-405-11	CARBON	100 5% 1/4W	R105	1-249-425-11	CARBON	4.7K 5% 1/4W
R9	1-249-437-11	CARBON	47K 5% 1/4W	R106	1-249-429-11	CARBON	10K 5% 1/4W
R10	1-249-441-11	CARBON	100K 5% 1/4W	R107	1-249-433-11	CARBON	22K 5% 1/4W
R21	1-249-417-11	CARBON	1K 5% 1/4W	R121	1-249-429-11	CARBON	10K 5% 1/4W
R22	1-249-417-11	CARBON	1K 5% 1/4W	R122	1-249-437-11	CARBON	47K 5% 1/4W
R23	1-249-417-11	CARBON	1K 5% 1/4W	R123	1-249-434-11	CARBON	27K 5% 1/4W
R24	1-249-417-11	CARBON	1K 5% 1/4W	R124	1-247-895-00	CARBON	470K 5% 1/4W
R25	1-249-425-11	CARBON	4.7K 5% 1/4W	R125	1-247-903-00	CARBON	1M 5% 1/4W
				R126	1-249-419-11	CARBON	1.5K 5% 1/4W
				R150	1-249-425-11	CARBON	4.7K 5% 1/4W
				R201	1-249-432-11	CARBON	18K 5% 1/4W

When indicating parts by reference number, please include the board name.

MAIN

POWER

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
R202	1-249-436-11	CARBON	39K	5%	1/4W	R729	1-249-433-11	CARBON	22K	5%	1/4W
R203	1-249-429-11	CARBON	10K	5%	1/4W	R730	1-249-433-11	CARBON	22K	5%	1/4W
R205	1-249-425-11	CARBON	4. 7K	5%	1/4W	R731	1-249-433-11	CARBON	22K	5%	1/4W
R206	1-249-429-11	CARBON	10K	5%	1/4W	< VARIABLE RESISTOR >					
R207	1-249-433-11	CARBON	22K	5%	1/4W	RV51	1-238-601-11	RES, ADJ, CARBON 22K	(AM TUNED IND. LIGHTING LEVEL)		
R221	1-249-429-11	CARBON	10K	5%	1/4W	RV52	1-238-601-11	RES, ADJ, CARBON 22K	(FM TUNED IND. LIGHTING LEVEL)		
R222	1-249-437-11	CARBON	47K	5%	1/4W	< TERMINAL >					
R223	1-249-434-11	CARBON	27K	5%	1/4W	TM1	1-536-708-00	TERMINAL BOARD, PUSH 4P (ANTENNA)			
R224	1-247-895-00	CARBON	470K	5%	1/4W	< TEST PIN >					
R225	1-247-903-00	CARBON	1M	5%	1/4W	* TP3	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P			
R226	1-249-419-11	CARBON	1. 5K	5%	1/4W	* TP51	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P			
R250	1-249-425-11	CARBON	4. 7K	5%	1/4W	< VIBRATOR >					
R501	1-249-441-11	CARBON	100K	5%	1/4W	X21	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)			
R502	1-249-441-11	CARBON	100K	5%	1/4W	X51	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)			
R601	1-247-903-00	CARBON	1M	5%	1/4W	X701	1-577-157-11	VIBRATOR, CERAMIC (8MHz)			
R602	1-249-413-11	CARBON	470	5%	1/4W	*****					
R603	1-249-429-11	CARBON	10K	5%	1/4W	* A-4356-401-A	POWER BOARD, COMPLETE	*****			
R604	1-249-423-11	CARBON	3. 3K	5%	1/4W	< AC INLET >					
R605	1-249-431-11	CARBON	15K	5%	1/4W	△AC1	1-526-930-11	INLET, AC (~AC IN)			
R606	1-249-417-11	CARBON	1K	5%	1/4W	< CAPACITOR >					
R607	1-249-441-11	CARBON	100K	5%	1/4W	C113	1-124-907-11	ELECT	10uF	20%	50V
R608	1-249-429-11	CARBON	10K	5%	1/4W	C114	1-162-290-31	CERAMIC	470PF	10%	50V
R609	1-249-431-11	CARBON	15K	5%	1/4W	C115	1-162-290-31	CERAMIC	470PF	10%	50V
R611	1-249-417-11	CARBON	1K	5%	1/4W	C116	1-126-233-11	ELECT	22uF	20%	50V
R612	1-249-429-11	CARBON	10K	5%	1/4W	C117	1-124-910-11	ELECT	47uF	20%	50V
R614	1-249-413-11	CARBON	470	5%	1/4W	C118	1-136-165-00	FILM	0. 1uF	5%	50V
R615	1-249-441-11	CARBON	100K	5%	1/4W	C119	1-136-165-00	FILM	0. 1uF	5%	50V
R620	1-249-409-11	CARBON	220	5%	1/4W	C213	1-124-907-11	ELECT	10uF	20%	50V
R703	1-249-429-11	CARBON	10K	5%	1/4W	C214	1-162-290-31	CERAMIC	470PF	10%	50V
R705	1-249-429-11	CARBON	10K	5%	1/4W	C215	1-162-290-31	CERAMIC	470PF	10%	50V
R706	1-249-429-11	CARBON	10K	5%	1/4W	C216	1-126-233-11	ELECT	22uF	20%	50V
R707	1-249-429-11	CARBON	10K	5%	1/4W	C217	1-124-910-11	ELECT	47uF	20%	50V
R708	1-249-433-11	CARBON	22K	5%	1/4W	C218	1-136-165-00	FILM	0. 1uF	5%	50V
R709	1-249-429-11	CARBON	10K	5%	1/4W	C219	1-136-165-00	FILM	0. 1uF	5%	50V
R710	1-249-438-11	CARBON	56K	5%	1/4W	C508	1-124-484-11	ELECT	220uF	20%	35V
R711	1-249-435-11	CARBON	33K	5%	1/4W	C509	1-162-306-11	CERAMIC	0. 01uF	20%	16V
R712	1-249-429-11	CARBON	10K	5%	1/4W	C510	1-124-907-11	ELECT	10uF	20%	50V
R713	1-249-441-11	CARBON	100K	5%	1/4W	C511	1-124-484-11	ELECT	220uF	20%	35V
R714	1-249-441-11	CARBON	100K	5%	1/4W	C512	1-124-907-11	ELECT	10uF	20%	50V
R718	1-249-433-11	CARBON	22K	5%	1/4W	C513	1-124-907-11	ELECT	10uF	20%	50V
R719	1-249-423-11	CARBON	3. 3K	5%	1/4W						
R720	1-249-433-11	CARBON	22K	5%	1/4W						
R721	1-249-433-11	CARBON	22K	5%	1/4W						
R722	1-249-433-11	CARBON	22K	5%	1/4W						
R723	1-249-433-11	CARBON	22K	5%	1/4W						
R724	1-249-433-11	CARBON	22K	5%	1/4W						
R725	1-249-433-11	CARBON	22K	5%	1/4W						
R726	1-249-433-11	CARBON	22K	5%	1/4W						
R727	1-249-433-11	CARBON	22K	5%	1/4W						
R728	1-249-433-11	CARBON	22K	5%	1/4W						

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Replace only with part number specified.

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When indicating parts by reference number, please include the board name.

POWER**BASS TREBLE**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C514	1-124-902-00	ELECT	0.47uF 20% 50V	R511	1-247-713-11	CARBON	1K 5% 1/4W
△C621	1-102-394-11	CERAMIC	0.01MF 250V	R512	1-249-417-11	CARBON	1K 5% 1/4W
C623	1-124-618-11	ELECT	2200uF 20% 35V	R513	1-249-441-11	CARBON	100K 5% 1/4W
C624	1-124-618-11	ELECT	2200uF 20% 35V	R514	1-247-903-00	CARBON	1M 5% 1/4W
C650	1-164-159-11	CERAMIC	0.1uF 50V	△R515	1-212-881-11	FUSIBLE	100 5% 1/4W F
< CIRCUIT BREAKER >				△R620	1-202-725-00	SOLID	3.3M 10% 1/2W
CB101	1-532-564-00	BREAKER, CIRCUIT		< TERMINAL >			
CB201	1-532-564-00	BREAKER, CIRCUIT		TM501	1-537-156-21	TERMINAL BOARD (SPEAKER)	
< CONNECTOR >				*****			
* CN602	1-568-854-11	SOCKET, CONNECTOR 11P		* A-4356-403-A	BASS TREBLE BOARD, COMPLETE		
* CNP601	1-695-894-11	PIN, CONNECTOR (PC BOARD) 11P		*****			
< DIODE >				< CAPACITOR >			
D503	8-719-987-63	DIODE 1N4148M		C102	1-124-927-11	ELECT	4.7uF 20% 100V
D621	8-719-312-09	DIODE RBA-402		C103	1-124-477-11	ELECT	47uF 20% 25V
< FUSE >				C104	1-102-963-00	CERAMIC	33PF 5% 50V
△F601	1-532-742-11	FUSE, GLASS TUBE (1.6A 125V)		C105	1-124-927-11	ELECT	4.7uF 20% 100V
△F602	1-532-783-21	FUSE, MICRO (5A 125V)		C106	1-130-476-00	MYLAR	0.0027uF 5% 50V
△F603	1-532-783-21	FUSE, MICRO (5A 125V)		C107	1-136-158-00	FILM	0.027uF 5% 50V
< IC >				C108	1-130-481-00	MYLAR	0.0068uF 5% 50V
△IC504	8-749-920-19	IC STK4122MK2		C109	1-136-163-00	FILM	0.068uF 5% 50V
< RESISTOR >				C202	1-124-927-11	ELECT	4.7uF 20% 100V
R127	1-249-417-11	CARBON	1K 5% 1/4W	C203	1-124-477-11	ELECT	47uF 20% 25V
R128	1-249-438-11	CARBON	56K 5% 1/4W	C204	1-102-963-00	CERAMIC	33PF 5% 50V
R129	1-249-412-11	CARBON	390 5% 1/4W	C205	1-124-927-11	ELECT	4.7uF 20% 100V
R130	1-249-438-11	CARBON	56K 5% 1/4W	C206	1-130-476-00	MYLAR	0.0027uF 5% 50V
R131	1-249-421-11	CARBON	2.2K 5% 1/4W	C207	1-136-158-00	FILM	0.027uF 5% 50V
R132	1-249-421-11	CARBON	2.2K 5% 1/4W	C208	1-130-481-00	MYLAR	0.0068uF 5% 50V
R133	1-249-429-11	CARBON	10K 5% 1/4W	C209	1-136-163-00	FILM	0.068uF 5% 50V
R134	1-249-455-11	CARBON	4.7 5% 1/4W	< CONNECTOR >			
R227	1-249-417-11	CARBON	1K 5% 1/4W	* CN503	1-565-973-11	PLUG (WITH CONNECTOR) (L) 7P	
R228	1-249-438-11	CARBON	56K 5% 1/4W	< IC >			
R229	1-249-412-11	CARBON	390 5% 1/4W	IC502	8-759-634-51	IC M5218AP	
R230	1-249-438-11	CARBON	56K 5% 1/4W	< RESISTOR >			
R231	1-249-421-11	CARBON	2.2K 5% 1/4W	R104	1-249-422-11	CARBON	2.7K 5% 1/4W
R232	1-249-421-11	CARBON	2.2K 5% 1/4W	R112	1-249-433-11	CARBON	22K 5% 1/4W
R233	1-249-429-11	CARBON	10K 5% 1/4W	R113	1-247-887-00	CARBON	220K 5% 1/4W
R234	1-249-455-11	CARBON	4.7 5% 1/4W	R114	1-249-430-11	CARBON	12K 5% 1/4W
△R505	1-212-881-11	FUSIBLE	100 5% 1/4W F	R115	1-247-887-00	CARBON	220K 5% 1/4W
△R506	1-212-881-11	FUSIBLE	100 5% 1/4W F	R116	1-249-426-11	CARBON	5.6K 5% 1/4W
R507	1-247-883-00	CARBON	150K 5% 1/4W	R117	1-249-414-11	CARBON	560 5% 1/4W
R508	1-249-429-11	CARBON	10K 5% 1/4W	R118	1-249-434-11	CARBON	27K 5% 1/4W
R509	1-249-433-11	CARBON	22K 5% 1/4W	R119	1-249-422-11	CARBON	2.7K 5% 1/4W
R510	1-247-713-11	CARBON	1K 5% 1/4W	R120	1-249-425-11	CARBON	4.7K 5% 1/4W

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When indicating parts by reference number, please include the board name.

BASS TREBLE**PANEL****VOLUME****HEADPHONE**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R204	1-249-422-11	CARBON	2.7K 5% 1/4W	S901	1-554-303-21	SWITCH, TACTILE (TUNING+)	
R212	1-249-433-11	CARBON	22K 5% 1/4W	S902	1-554-303-21	SWITCH, TACTILE (BAND)	
R213	1-247-887-00	CARBON	220K 5% 1/4W	S903	1-554-303-21	SWITCH, TACTILE (TUNING-)	
R214	1-249-430-11	CARBON	12K 5% 1/4W	S904	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R215	1-247-887-00	CARBON	220K 5% 1/4W	S905	1-554-303-21	SWITCH, TACTILE (MODE)	
R216	1-249-426-11	CARBON	5.6K 5% 1/4W	S906	1-554-303-21	SWITCH, TACTILE (DBFB)	
R217	1-249-414-11	CARBON	560 5% 1/4W	S907	1-554-303-21	SWITCH, TACTILE (FUNCTION)	
R218	1-249-434-11	CARBON	27K 5% 1/4W	S908	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	
R219	1-249-422-11	CARBON	2.7K 5% 1/4W	*****			
R220	1-249-425-11	CARBON	4.7K 5% 1/4W	*****			
< VARIABLE RESISTOR >				*****			
RV501	1-223-255-11	RES, VAR, CARBON 100K/100K (BASS)		< CAPACITOR >			
RV502	1-223-255-11	RES, VAR, CARBON 100K/100K (TREBLE)		< CAPACITOR >			
*****				C702	1-124-443-00	ELECT 100uF 20% 10V	
*****				C703	1-124-907-11	ELECT 10uF 20% 50V	
*****				C704	1-124-907-11	ELECT 10uF 20% 50V	
*****				< CONNECTOR >			
*****				CN701	1-695-094-11	SOCKET, CONNECTOR 11P	
*****				< IC >			
*****				IC701	8-759-820-62	IC LB1639	
*****				< RESISTOR >			
*****				R701	1-247-887-00	CARBON 220K 5% 1/4W	
*****				R702	1-247-887-00	CARBON 220K 5% 1/4W	
*****				< VARIABLE RESISTOR >			
*****				RV301	1-223-254-11	RES, VAR, CARBON 100K/100K (VOLUME)	
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AUDIO SYSTEM CONTROL

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-4356-405-A	AUDIO SYSTEM CONTROL BOARD, COMPLETE *****		C501	1-124-925-11	ELECT	2. 2uF 20% 100V
		< CAPACITOR >		C502	1-136-562-11	FILM	0. 0082uF 5% 630V
C101	1-162-290-31	CERAMIC	470PF 10% 50V	C503	1-130-848-00	FILM	0. 0082uF 5% 100V
C103	1-136-157-00	FILM	0. 022uF 5% 50V	C504	1-136-593-11	FILM	0. 0033uF 5% 100V
C104	1-124-282-00	ELECT	22uF 20% 25V	C505	1-136-593-11	FILM	0. 0033uF 5% 100V
C105	1-124-443-00	ELECT	100uF 20% 10V	C506	1-124-902-00	ELECT	0. 47uF 20% 50V
C111	1-162-290-31	CERAMIC	470PF 10% 50V	C507	1-124-927-11	ELECT	4. 7uF 20% 100V
C113	1-136-157-00	FILM	0. 022uF 5% 50V	C508	1-124-927-11	ELECT	4. 7uF 20% 100V
C114	1-124-282-00	ELECT	22uF 20% 25V	C509	1-136-601-11	FILM	0. 01uF 5% 630V
C115	1-124-443-00	ELECT	100uF 20% 10V	C510	1-124-478-11	ELECT	100uF 20% 25V
C116	1-124-443-00	ELECT	100uF 20% 10V	C511	1-124-478-11	ELECT	100uF 20% 25V
C121	1-136-433-11	FILM	100PF 5% 630V	C601	1-136-175-00	FILM	0. 68uF 5% 50V
C122	1-162-284-31	CERAMIC	150PF 10% 50V	C602	1-164-159-11	CERAMIC	0. 1uF 50V
C123	1-136-439-11	FILM	330PF 5% 630V	C603	1-124-443-00	ELECT	100uF 20% 10V
C131	1-136-157-00	FILM	0. 022uF 5% 50V	C610	1-124-585-11	ELECT	3300uF 20% 10V
C132	1-126-176-11	ELECT	220uF 20% 10V	C801	1-124-925-11	ELECT	2. 2uF 20% 100V
C133	1-124-927-11	ELECT	4. 7uF 20% 100V	C802	1-123-382-00	ELECT	3. 3uF 20% 100V
C134	1-131-587-11	TANTALUM	0. 68uF 5% 35V	C803	1-124-907-11	ELECT	10uF 20% 50V
C135	1-124-927-11	ELECT	4. 7uF 20% 100V	C804	1-161-494-00	CERAMIC	0. 022uF 25V
C136	1-124-927-11	ELECT	4. 7uF 20% 100V	C806	1-124-471-00	ELECT	1000uF 20% 6. 3V
C137	1-124-902-00	ELECT	0. 47uF 20% 50V	C810	1-124-443-00	ELECT	100uF 20% 10V
C138	1-124-927-11	ELECT	4. 7uF 20% 100V	C811	1-164-159-11	CERAMIC	0. 1uF 50V
C139	1-124-907-11	ELECT	10uF 20% 50V	< CONNECTOR >			
C140	1-124-443-00	ELECT	100uF 20% 10V	* CN101	1-564-506-11	PLUG, CONNECTOR 3P	
C170	1-161-375-00	CERAMIC	0. 0022uF 20% 16V	* CN111	1-564-509-11	PLUG, CONNECTOR 6P	
C201	1-162-290-31	CERAMIC	470PF 10% 50V	* CN121	1-564-505-11	PLUG, CONNECTOR 2P	
C203	1-136-157-00	FILM	0. 022uF 5% 50V	CN401	1-695-092-11	SOCKET, CONNECTOR 7P	
C204	1-124-282-00	ELECT	22uF 20% 25V	* CN402	1-565-956-11	SOCKET, CONNECTOR 7P	
C205	1-124-443-00	ELECT	100uF 20% 10V	CN501	1-695-094-11	SOCKET, CONNECTOR 11P	
C211	1-162-290-31	CERAMIC	470PF 10% 50V	* CN601	1-564-509-11	PLUG, CONNECTOR 6P	
C213	1-136-157-00	FILM	0. 022uF 5% 50V	* CN602	1-568-832-11	SOCKET, CONNECTOR 13P	
C214	1-124-282-00	ELECT	22uF 20% 25V	* CN801	1-568-830-21	SOCKET, CONNECTOR 11P	
C215	1-124-443-00	ELECT	100uF 20% 10V	< DIODE >			
C216	1-124-443-00	ELECT	100uF 20% 10V	D501	8-719-987-63	DIODE	1N4148M
C221	1-136-433-11	FILM	100PF 5% 630V	D502	8-719-987-63	DIODE	1N4148M
C222	1-162-284-31	CERAMIC	150PF 10% 50V	D503	8-719-933-50	DIODE	HZS7C2L
C223	1-136-439-11	FILM	330PF 5% 630V	D504	8-719-933-50	DIODE	HZS7C2L
C231	1-136-157-00	FILM	0. 022uF 5% 50V	D601	8-719-933-54	DIODE	HZS9A2L
C232	1-126-176-11	ELECT	220uF 20% 10V	D602	8-719-200-82	DIODE	11ES2
C233	1-124-927-11	ELECT	4. 7uF 20% 100V	D801	8-719-987-63	DIODE	1N4148M
C234	1-131-587-11	TANTALUM	0. 68uF 5% 35V	D802	8-719-987-63	DIODE	1N4148M
C235	1-124-927-11	ELECT	4. 7uF 20% 100V	< IC >			
C236	1-124-927-11	ELECT	4. 7uF 20% 100V	IC101	8-759-112-93	IC	uPC4570HA-1
C237	1-124-902-00	ELECT	0. 47uF 20% 50V	IC102	8-759-112-93	IC	uPC4570HA-1
C238	1-124-927-11	ELECT	4. 7uF 20% 100V	IC103	8-759-079-42	IC	uPC1330HA-NA
C239	1-124-907-11	ELECT	10uF 20% 50V	IC104	8-759-140-53	IC	uPD4053BC
C240	1-124-443-00	ELECT	100uF 20% 10V	IC105	8-752-057-19	IC	CXA1101P
C270	1-161-375-00	CERAMIC	0. 0022uF 20% 16V				

When indicating parts by reference number, please include the board name.

AUDIO SYSTEM CONTROL

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
IC106	8-752-055-62	IC CXA1579P		R133	1-247-887-00	CARBON 220K 5% 1/4W	
IC601	8-759-822-09	IC LB1641		R134	1-249-405-11	CARBON 100 5% 1/4W	
IC801	8-759-093-00	IC M37471M2-128SP		R135	1-249-436-11	CARBON 39K 5% 1/4W	
< COIL >				R136	1-249-425-11	CARBON 4.7K 5% 1/4W	
L101	1-410-781-11	INDUCTOR 33mH		R137	1-249-429-11	CARBON 10K 5% 1/4W	
L201	1-410-781-11	INDUCTOR 33mH		R138	1-249-425-11	CARBON 4.7K 5% 1/4W	
L501	1-410-521-11	INDUCTOR 100uH 5%		R139	1-249-425-11	CARBON 4.7K 5% 1/4W	
< TRANSISTOR >				R140	1-249-422-11	CARBON 2.7K 5% 1/4W	
Q131	8-729-900-80	TRANSISTOR DTC114ES		R141	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q132	8-729-620-05	TRANSISTOR 2SC2603-EF		R201	1-247-899-11	CARBON 680K 5% 1/4W	
Q231	8-729-900-80	TRANSISTOR DTC114ES		R202	1-249-405-11	CARBON 100 5% 1/4W	
Q232	8-729-620-05	TRANSISTOR 2SC2603-EF		R203	1-247-882-11	CARBON 130K 5% 1/4W	
Q501	8-729-194-57	TRANSISTOR 2SC945-P		R204	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q502	8-729-194-57	TRANSISTOR 2SC945-P		R205	1-249-409-11	CARBON 220 5% 1/4W	
Q503	8-729-194-57	TRANSISTOR 2SC945-P		R211	1-247-889-00	CARBON 270K 5% 1/4W	
Q504	8-729-900-89	TRANSISTOR DTC144ES		R212	1-249-433-11	CARBON 22K 5% 1/4W	
Q508	8-729-119-76	TRANSISTOR 2SA1175-HFE		R213	1-247-882-11	CARBON 130K 5% 1/4W	
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE		R214	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q510	8-729-900-61	TRANSISTOR DTA114ES		R215	1-249-409-11	CARBON 220 5% 1/4W	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE		R216	1-249-405-11	CARBON 100 5% 1/4W	
Q512	8-729-900-61	TRANSISTOR DTA114ES		R221	1-249-430-11	CARBON 12K 5% 1/4W	
Q601	8-729-900-65	TRANSISTOR DTA144ES		R231	1-247-838-00	CARBON 2K 5% 1/4W	
Q602	8-729-900-89	TRANSISTOR DTC144ES		R232	1-247-842-11	CARBON 3K 5% 1/4W	
Q603	8-729-801-93	TRANSISTOR 2SD1387-3		R233	1-247-887-00	CARBON 220K 5% 1/4W	
Q604	8-729-900-61	TRANSISTOR DTA114ES		R234	1-249-405-11	CARBON 100 5% 1/4W	
Q605	8-729-119-76	TRANSISTOR 2SA1175-HFE		R235	1-249-436-11	CARBON 39K 5% 1/4W	
Q606	8-729-620-05	TRANSISTOR 2SC2603-EF		R236	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q801	8-729-900-80	TRANSISTOR DTC114ES		R237	1-249-429-11	CARBON 10K 5% 1/4W	
Q802	8-729-620-05	TRANSISTOR 2SC2603-EF		R238	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q803	8-729-620-05	TRANSISTOR 2SC2603-EF		R239	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q804	8-729-900-61	TRANSISTOR DTA114ES		R240	1-249-422-11	CARBON 2.7K 5% 1/4W	
Q806	8-729-900-61	TRANSISTOR DTA114ES		R241	1-249-425-11	CARBON 4.7K 5% 1/4W	
< RESISTOR >				R501	1-249-429-11	CARBON 10K 5% 1/4W	
R101	1-247-899-11	CARBON 680K 5% 1/4W		△R502	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
R102	1-249-405-11	CARBON 100 5% 1/4W		△R503	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
R103	1-247-882-11	CARBON 130K 5% 1/4W		R504	1-249-436-11	CARBON 39K 5% 1/4W	
R104	1-249-426-11	CARBON 5.6K 5% 1/4W		R505	1-249-436-11	CARBON 39K 5% 1/4W	
R105	1-249-409-11	CARBON 220 5% 1/4W		R506	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-247-889-00	CARBON 270K 5% 1/4W		R507	1-249-429-11	CARBON 10K 5% 1/4W	
R112	1-249-433-11	CARBON 22K 5% 1/4W		R508	1-249-429-11	CARBON 10K 5% 1/4W	
R113	1-247-882-11	CARBON 130K 5% 1/4W		R509	1-215-460-00	METAL 43K 1% 1/6W	
R114	1-249-426-11	CARBON 5.6K 5% 1/4W		R510	1-249-437-11	CARBON 47K 5% 1/4W	
R115	1-249-409-11	CARBON 220 5% 1/4W		R511	1-249-429-11	CARBON 10K 5% 1/4W	
R116	1-249-405-11	CARBON 100 5% 1/4W		R512	1-249-415-11	CARBON 680 5% 1/4W	
R121	1-249-430-11	CARBON 12K 5% 1/4W		R513	1-215-455-00	METAL 27K 1% 1/6W	
R131	1-247-838-00	CARBON 2K 5% 1/4W		R514	1-247-862-11	CARBON 20K 5% 1/4W	
R132	1-247-842-11	CARBON 3K 5% 1/4W		R515	1-249-429-11	CARBON 10K 5% 1/4W	
				R516	1-247-846-11	CARBON 4.3K 5% 1/4W	
				R517	1-249-429-11	CARBON 10K 5% 1/4W	
				R518	1-249-429-11	CARBON 10K 5% 1/4W	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

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Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

AUDIO SYSTEM CONTROL

CONTROL SW

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks			
R519	1-249-417-11	CARBON	1K	5%	1/4W	< VARIABLE RESISTOR >						
R522	1-247-858-11	CARBON	13K	5%	1/4W	RV101	1-241-119-11	RES, ADJ, CARBON 1K (PB LEVEL L DECK-A)				
R523	1-249-433-11	CARBON	22K	5%	1/4W	RV111	1-241-119-11	RES, ADJ, CARBON 1K (PB LEVEL L DECK-B)				
R524	1-247-854-11	CARBON	9.1K	5%	1/4W	RV121	1-230-724-11	RES, ADJ, CARBON 100K (REC BIAS L)				
R525	1-249-433-11	CARBON	22K	5%	1/4W	RV131	1-230-721-11	RES, ADJ, CARBON 10K (REC LEVEL L)				
R526	1-249-418-11	CARBON	1.2K	5%	1/4W	RV201	1-241-119-11	RES, ADJ, CARBON 1K (PB LEVEL R DECK-A)				
R527	1-249-433-11	CARBON	22K	5%	1/4W	RV211	1-241-119-11	RES, ADJ, CARBON 1K (PB LEVEL R DECK-B)				
R528	1-249-433-11	CARBON	22K	5%	1/4W	RV221	1-230-724-11	RES, ADJ, CARBON 100K (REC BIAS R)				
R529	1-249-437-11	CARBON	47K	5%	1/4W	RV231	1-230-721-11	RES, ADJ, CARBON 10K (REC LEVEL R)				
R601	1-249-417-11	CARBON	1K	5%	1/4W	RV601	1-230-721-11	RES, ADJ, CARBON 10K (TAPE SPEED HIGH)				
R602	1-249-421-11	CARBON	2.2K	5%	1/4W	RV602	1-230-720-11	RES, ADJ, CARBON 4.7K (TAPE SPEED NORMAL)				
R603	1-249-414-11	CARBON	560	5%	1/4W	< TRANSFORMER >						
R604	1-249-425-11	CARBON	4.7K	5%	1/4W	T501	1-433-400-11	TRANSFORMER, BIAS OSCILLATION				
R605	1-249-408-11	CARBON	180	5%	1/4W	< VIBRATOR >						
R606	1-249-423-11	CARBON	3.3K	5%	1/4W	X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)				
R608	1-249-425-11	CARBON	4.7K	5%	1/4W	*****						
△R650	1-219-136-11	FUSIBLE	0.22	10%	1/4W F	* A-4356-406-A	CONTROL SW BOARD, COMPLETE					
△R651	1-219-136-11	FUSIBLE	0.22	10%	1/4W F	*****						
R801	1-249-429-11	CARBON	10K	5%	1/4W	< CONNECTOR >						
R802	1-249-429-11	CARBON	10K	5%	1/4W	* CN901	1-568-854-11	SOCKET, CONNECTOR 11P				
R803	1-249-429-11	CARBON	10K	5%	1/4W	< DIODE >						
R804	1-249-429-11	CARBON	10K	5%	1/4W	D901	8-719-026-66	LED SML1460E (▷ DECK-A)				
R805	1-249-417-11	CARBON	1K	5%	1/4W	D902	8-719-026-66	LED SML1460E (▷ DECK-B)				
R806	1-249-437-11	CARBON	47K	5%	1/4W	D903	8-719-026-68	LED SML1960A (PAUSE ■)				
R807	1-249-417-11	CARBON	1K	5%	1/4W	D904	8-719-026-64	LED SML1260S (REC ●)				
R808	1-249-437-11	CARBON	47K	5%	1/4W	D905	8-719-026-64	LED SML1260S (HIGH SPEED DUBBING)				
R809	1-247-903-00	CARBON	1M	5%	1/4W	< TRANSISTOR >						
R810	1-249-429-11	CARBON	10K	5%	1/4W	Q901	8-729-900-61	TRANSISTOR DTA114ES				
R811	1-249-437-11	CARBON	47K	5%	1/4W	Q902	8-729-900-61	TRANSISTOR DTA114ES				
R812	1-249-420-11	CARBON	1.8K	5%	1/4W	Q903	8-729-900-61	TRANSISTOR DTA114ES				
R813	1-249-419-11	CARBON	1.5K	5%	1/4W	< RESISTOR >						
R814	1-249-428-11	CARBON	8.2K	5%	1/4W	R901	1-249-407-11	CARBON 150 5%	1/4W			
R815	1-249-429-11	CARBON	10K	5%	1/4W	R902	1-249-407-11	CARBON 150 5%	1/4W			
R816	1-249-433-11	CARBON	22K	5%	1/4W	R903	1-249-409-11	CARBON 220 5%	1/4W			
R818	1-249-417-11	CARBON	1K	5%	1/4W	R904	1-249-413-11	CARBON 470 5%	1/4W			
R819	1-249-425-11	CARBON	4.7K	5%	1/4W	R905	1-249-413-11	CARBON 470 5%	1/4W			
R820	1-249-417-11	CARBON	1K	5%	1/4W	R906	1-249-419-11	CARBON 1.5K 5%	1/4W			
R821	1-249-425-11	CARBON	4.7K	5%	1/4W	R907	1-249-421-11	CARBON 2.2K 5%	1/4W			
R822	1-249-417-11	CARBON	1K	5%	1/4W	R908	1-249-424-11	CARBON 3.9K 5%	1/4W			
R823	1-249-429-11	CARBON	10K	5%	1/4W	R909	1-249-426-11	CARBON 5.6K 5%	1/4W			
R824	1-249-417-11	CARBON	1K	5%	1/4W	R910	1-249-430-11	CARBON 12K 5%	1/4W			
R825	1-249-429-11	CARBON	10K	5%	1/4W	R911	1-249-419-11	CARBON 1.5K 5%	1/4W			
R826	1-249-417-11	CARBON	1K	5%	1/4W							
R827	1-249-429-11	CARBON	10K	5%	1/4W							
R828	1-249-429-11	CARBON	10K	5%	1/4W							
R830	1-249-411-11	CARBON	330	5%	1/4W							
R832	1-249-393-11	CARBON	10	5%	1/4W							
R899	1-249-393-11	CARBON	10	5%	1/4W							

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When indicating parts by reference number, please include the board name.

CONTROL SW**SHIELD**

Ref.No.	Part No.	Description	Remarks
R912	1-249-421-11	CARBON	2.2K 5% 1/4W
R913	1-247-854-11	CARBON	9.1K 5% 1/4W
R914	1-249-430-11	CARBON	12K 5% 1/4W
< SWITCH >			
S901	1-692-356-11	SWITCH, SLIDE (DOLBY NR)	
S902	1-554-303-21	SWITCH, TACTILE (■ DECK-A)	
S903	1-554-303-21	SWITCH, TACTILE (▷ DECK-A)	
S904	1-554-303-21	SWITCH, TACTILE (◀◀ DECK-B)	
S905	1-554-303-21	SWITCH, TACTILE (▶▶ DECK-B)	
S906	1-554-303-21	SWITCH, TACTILE (REC ● DECK-B)	
S907	1-554-303-21	SWITCH, TACTILE (HIGH SPEED DUBBING)	
S908	1-554-303-21	SWITCH, TACTILE (■ DECK-B)	
S909	1-554-303-21	SWITCH, TACTILE (PAUSE ■ DECK-B)	
S910	1-554-303-21	SWITCH, TACTILE (▷ DECK-B)	
S911	1-554-303-21	SWITCH, TACTILE (◀◀ DECK-A)	
S912	1-554-303-21	SWITCH, TACTILE (▶▶ DECK-A)	

*	1-647-172-11	SHIELD BOARD	*****

MISCELLANEOUS			

62	1-696-829-11	WIRE (FLAT TYPE) (15 CORE)	
102	1-534-517-00	WIRE (FLAT TYPE) (13 CORE)	
103	1-575-784-11	WIRE (FLAT TYPE) (11 CORE)	
* 105	1-533-213-31	HOLDER, FUSE	
HE901	1-543-673-11	HEAD, MAGNETIC (ERASE)	
HP901	1-543-940-11	HEAD, MAGNETIC (PLAYBACK)	
HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB)	
M901	X-3362-377-1	MOTOR (WH) ASSY (CAPSTAN)	
M902	A-2004-136-A	MOTOR ASSY, DC (TRIGGER)	
△T901	1-423-391-11	TRANSFORMER, POWER (US, Mexican)	
△T901	1-423-430-11	TRANSFORMER, POWER (Canadian)	

Ref.No.	Part No.	Description	Remarks
ACCESSORIES & PACKING MATERIALS			

	3-703-710-41	STICKER, SONY SYMBOL (12)	
*	4-953-669-01	CUSHION (R)	
*	4-953-670-02	CUSHION (L)	

HARDWARE LIST			
#1	7-621-773-93	SCREW (PANEL 2.6 TP2)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#4	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#5	7-682-547-04	SCREW +BVTT 3X6 (S)	
#6	7-685-650-79	SCREW +BVTP 3X16 TYPE2	
#7	7-682-546-04	+PTTWH 3X5	
#10	7-623-921-01	RING, RETAINING, CAPSTAN	
#11	7-621-255-25	SCREW +BVTT 2X4 (S)	
#12	7-621-770-XX	SCREW +BVTT 2.6X8 (S)	
#13	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
#14	7-621-775-10	SCREW +B 2.6X4	
#15	7-621-775-00	SCREW +B 2.6X3	
#16	7-621-770-96	SCREW +B 2X8	

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CDP-H1750

SERVICE MANUAL

This set is the CD player section
in MHC-1750.

*US Model
Canadian Model
Mexican Model*

- CDP-H1750 is a model which has been designed based on the CDP-H3750.
- The electrical specifications of this model are almost identical to those of CDP-H3750.
This manual contains only the points which differ from CDP-H3750.
- Refer to the CDP-H3750 Service Manual for related information not contained in this manual.
- Refer to the CDP-H3750 US model for Mexican model.

COMPACT DISC PLAYER
SONY®

DIAGRAMS

 : indicates changed portions

Page

CDP-H3750

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[PANEL BOARD]

MEMU INPUT

CHARACTER

ERASE

IC301

S326

S329

CN301

R301

R302

R303

R304

R305

R306

R307

R308

R309

R310

R311

R312

R313

R314

R315

R316

R317

R318

R319

R320

R321

R322

R323

R324

R325

R326

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R674

R675

R676

R677

R678

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R683

R684

R685

R686

R687

R688

R689

R690

R691

R692

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R694

R695

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R699

R700

R701

R702

R703

R704

R705

R706

R707

R708

R709

R710

R711

R712

R713

R714

R715

R716

R717

R718

R719

R720

R721

R722

R723

R724

R725

R726

R727

R728

R729

R730

R731

R732

R733

R

EXPLODED VIEWS

Page	CDP-H3750				CDP-H1750		
	No.	Part No.	Description	Remarks	Part No.	Description	Remarks
19	3	X-4942-946-1	PANEL ASSY, FRONT		X-4943-076-1	PANEL ASSY, FRONT	
	* 13	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)		* A-4649-457-A	PANEL BOARD, COMPLETE	

ELECTRICAL PARTS LIST

Page	CDP-H3750				CDP-H1750		
	No.	Part No.	Description	Remarks	Part No.	Description	Remarks
26	*	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)		*A-4349-457-A	PANEL BOARD, COMPLETE	
27	R309 R384	1-216-073-00	METAL CHIP 10k 5% 1/10W		1-216-073-00	METAL CHIP 10k 5% 1/10W	

CDP-H3750

SERVICE MANUAL



*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model*

This set is the CD player section
in FH-E705C, MHC-2750/3750.

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM23-5BD3
Optical Pick-Up Block Type	BU-5BD3

SPECIFICATIONS

System	Compact disc digital audio system
Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$) Emission duration: continuous
Laser output	Max. $44.6 \mu\text{W}^*$ * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Signal to noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.05% (at 1 kHz)
Channel separation	More than 90 dB
Output level	1.6 V (at 50 kilohms)
Load impedance	More than 10 kilohms

Design and specifications subject to change without notice.

For the United Kingdom and European countries.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE Δ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.



COMPACT DISC PLAYER
SONY[®]

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

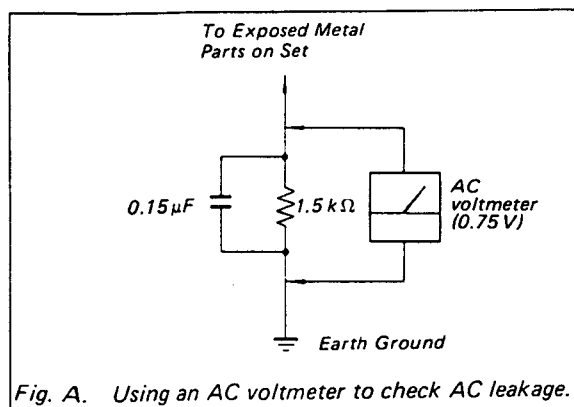


Fig. A. Using an AC voltmeter to check AC leakage.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

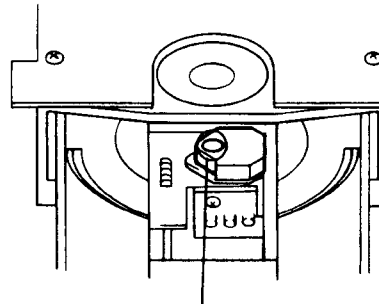
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30cm away from the objective lens.

LASER DIODE AND FOCUS SERCH OPERATION CHECK

1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.



- Confirm that laser beam is spread.
- Up and down motion of the objective lens. (3 times)

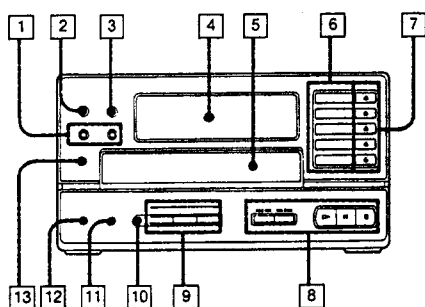
TABLE OF CONTENTS

<i>Section</i>	<i>Title</i>	<i>Page</i>
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2-1.	Remove the Main Block	4
2-2.	Exchange of Stocker Assy	4
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SECTION 1
GENERAL

1-1. PARTS IDENTIFICATION

This section is extracted from instruction manual.

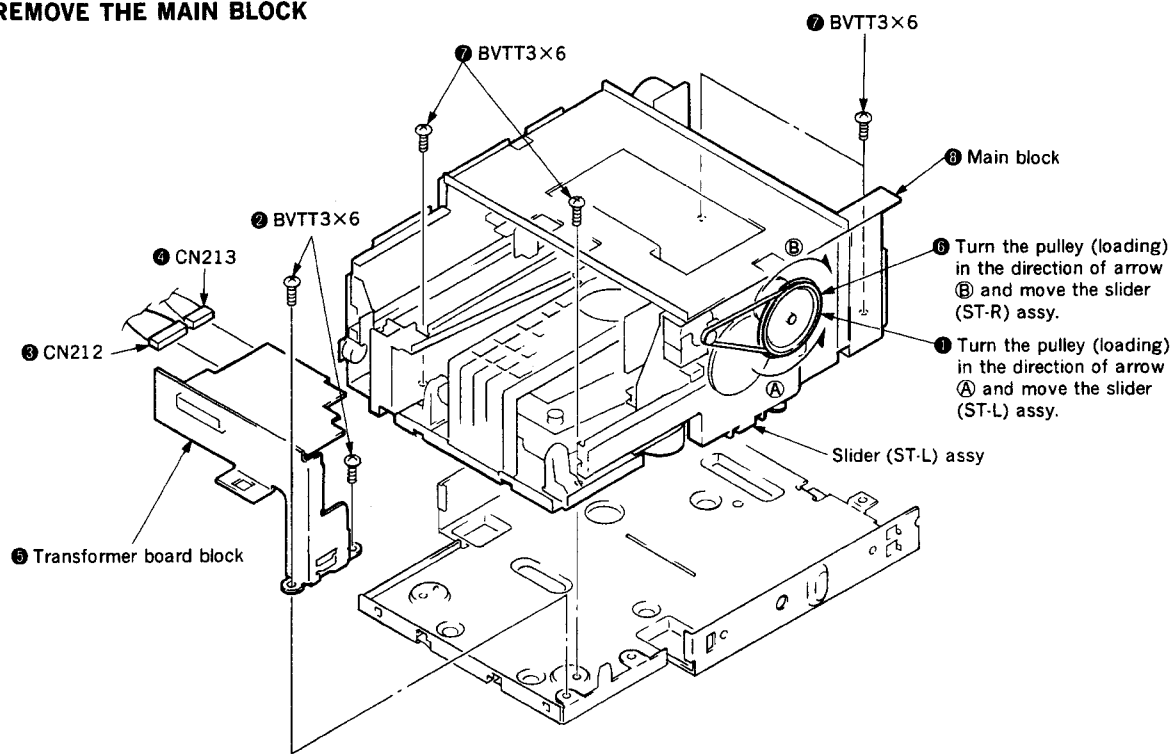


- 1 CHARACTER </> buttons 74
- 2 MEMO INPUT button 74
- 3 CURSOR button 74
- 4 Display window
- 5 Disc tray door
- 6 DISC 1 — 5 selectors and disc tray indicators 29 34
- 7 OPEN/CLOSE buttons 28
- 8 CD operation buttons
 - : Stop button
 - ||: Pause button
 - >: Play button
 - ◀◀◀▶▶▶: Manual search (when kept depressed)/AMS* (when pressed) buttons
- 9 PLAY MODE buttons
 - PROGRAM button 44
 - SHUFFLE button 40
 - CONTINUE button 30
- 10 REPEAT button 42
- 11 TIME/MEMO button 32 76
- 12 SOUND FIELD FILE button 78
- 13 ERASE button 76 78

SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

2-1. REMOVE THE MAIN BLOCK



2-2. EXCHANGE OF STOCKER ASSY

How to Attachment

- ① Turn the pulley (loading) set the chassis hole position to slider (ST-L) assy. (See Fig. A)
- ② Turn the pulley (loading) ② set the position of illustration for slider (TB).
- ③ Attach the stocker assy.

Note) Sure attach to ditch of chassis side for shaft or claw of stocker assy.

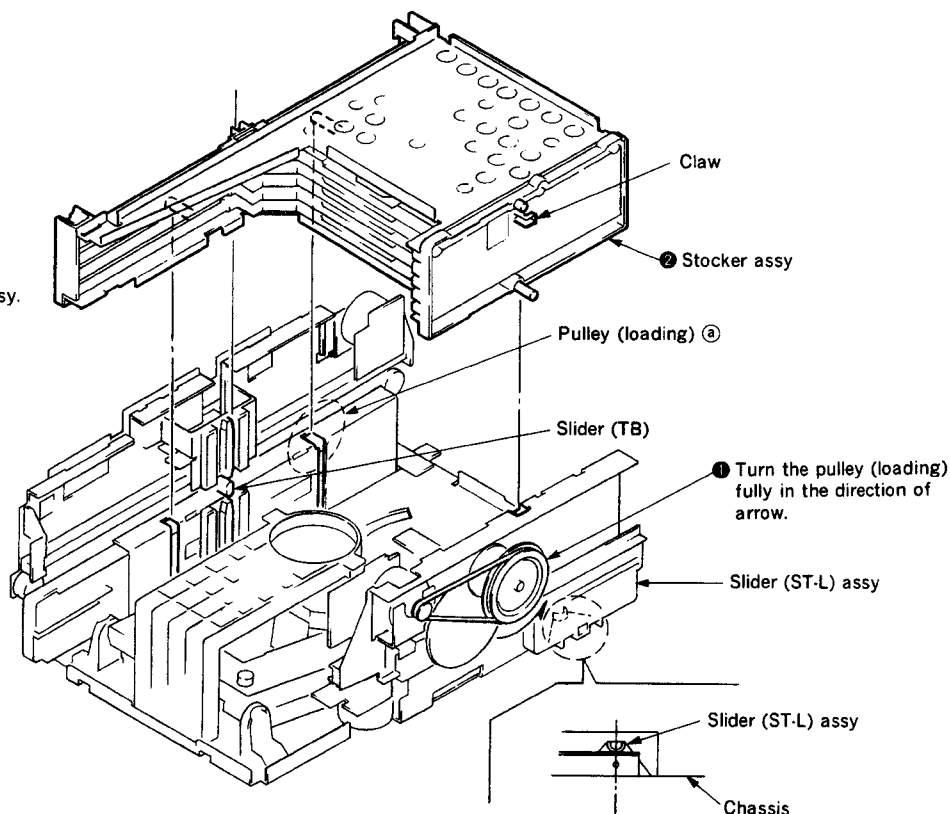
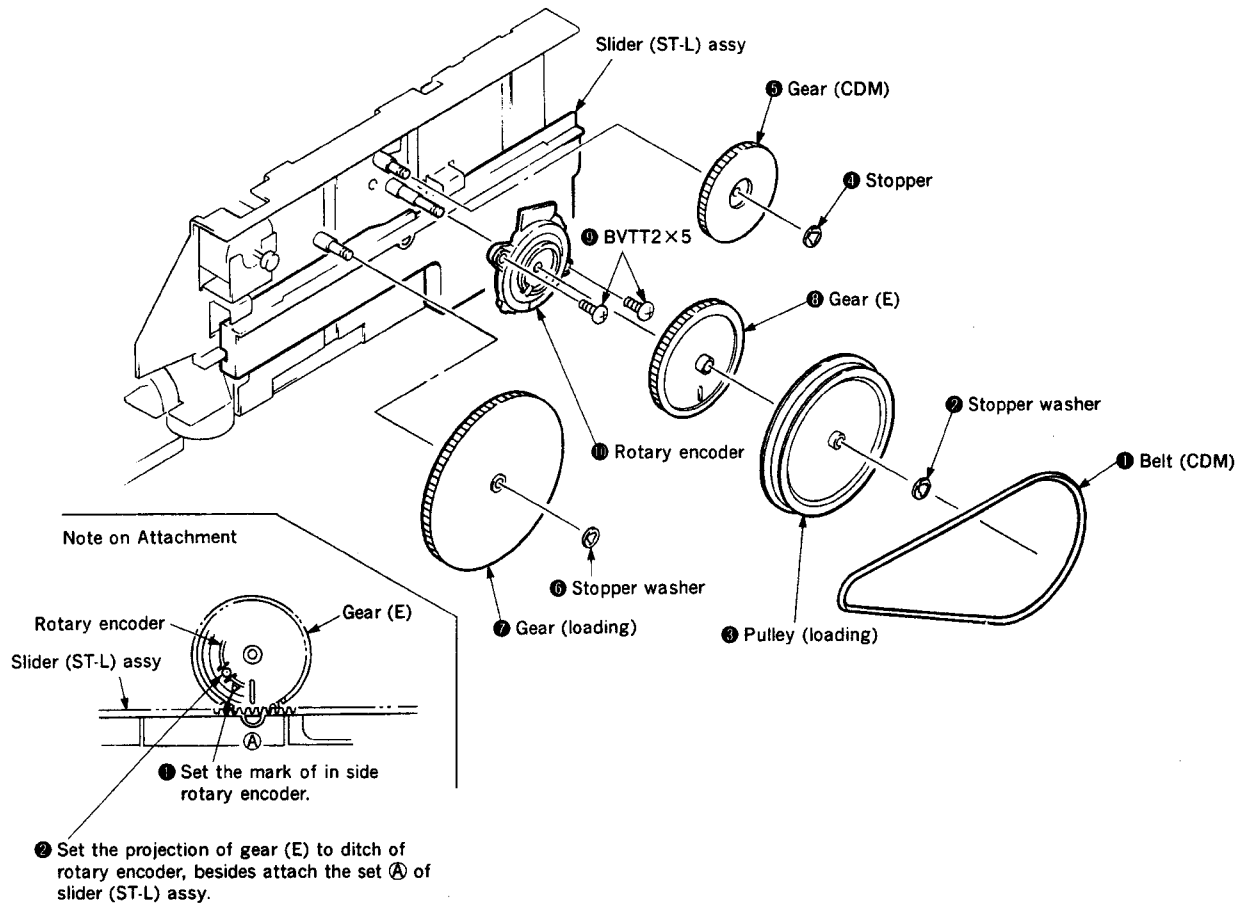


Fig. A

2-3. EXCHANGE OF ROTARY ENCODER

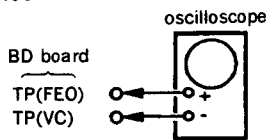


SECTION 3 ELECTRICAL BLOCK CHECKING

Note :

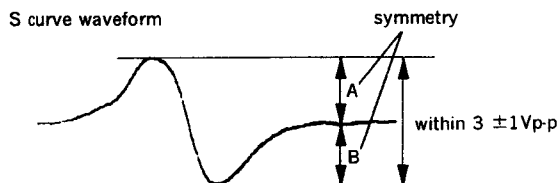
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10M Ω impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.

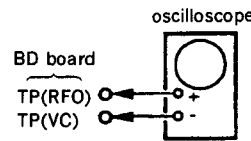


5. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.

- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

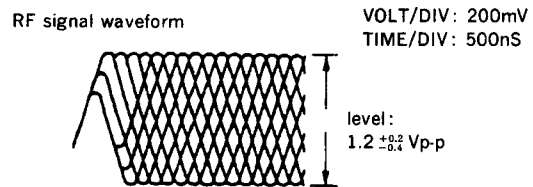


Procedure :

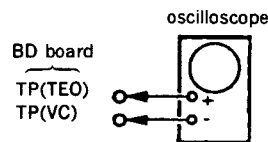
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

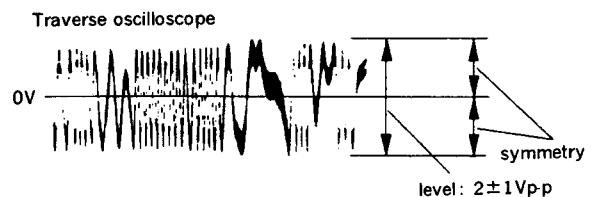


E-F Balance Check



Procedure :

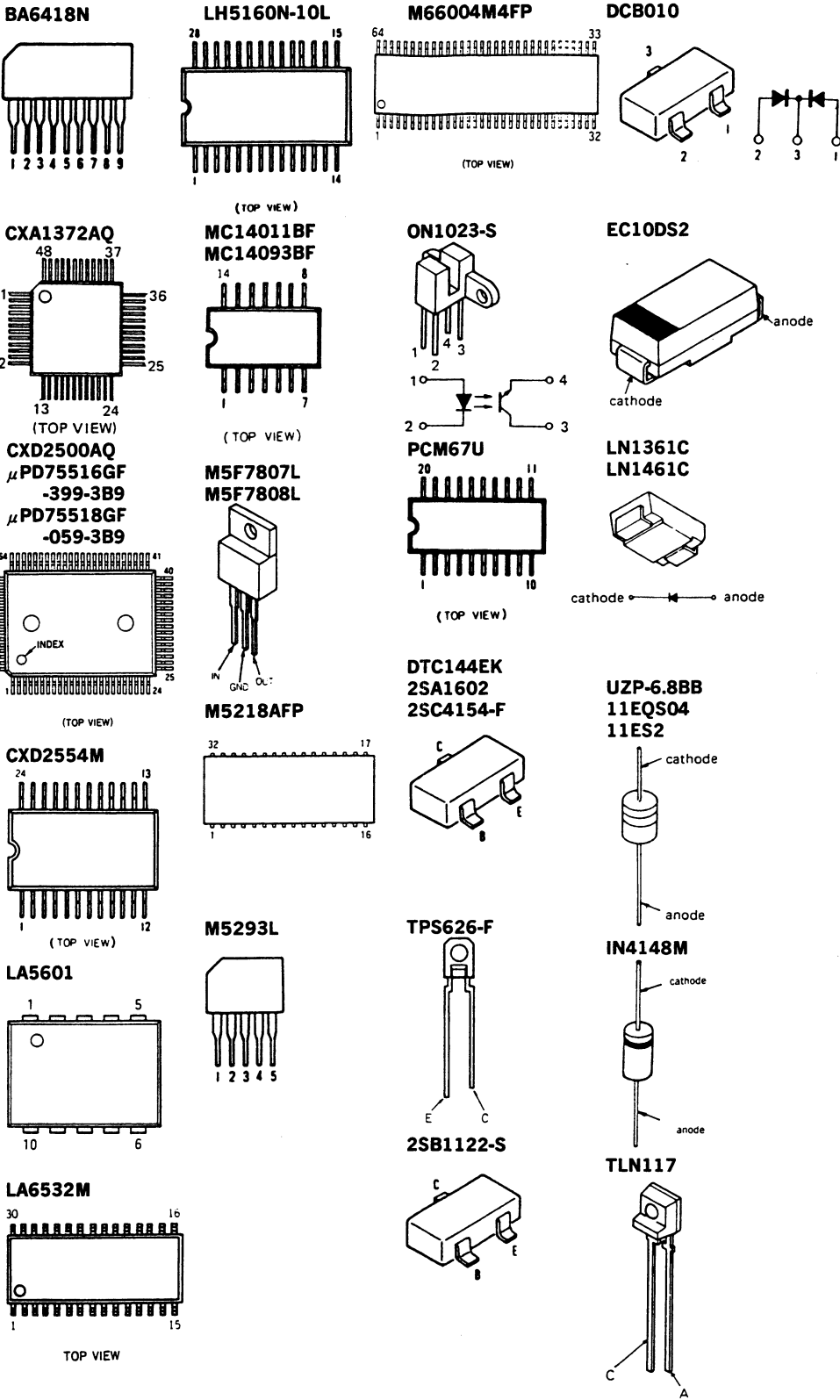
1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.



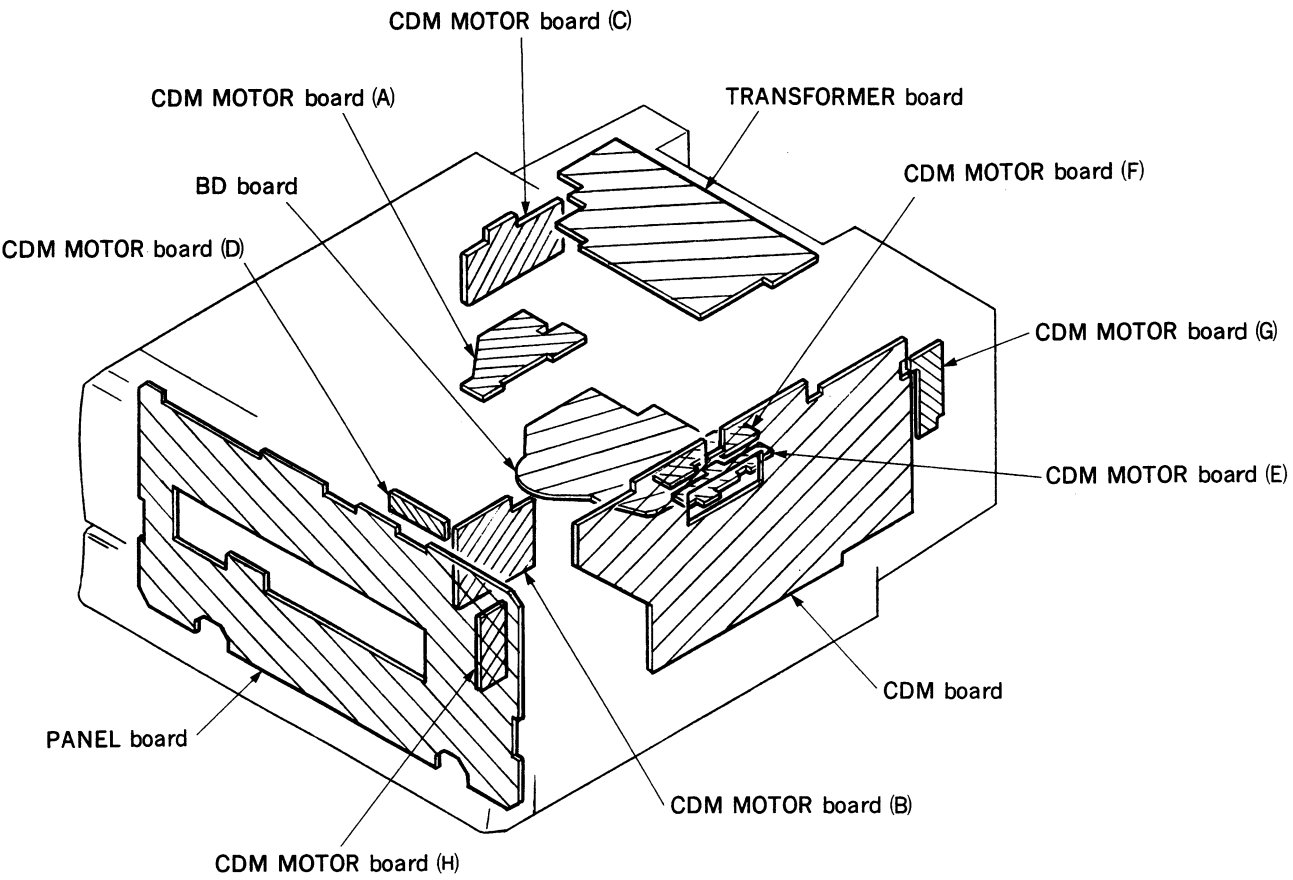
6. Remove the lead wire connected in step 1.

SECTION 4
DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS



4-2. CIRCUIT BOARDS LOCATION



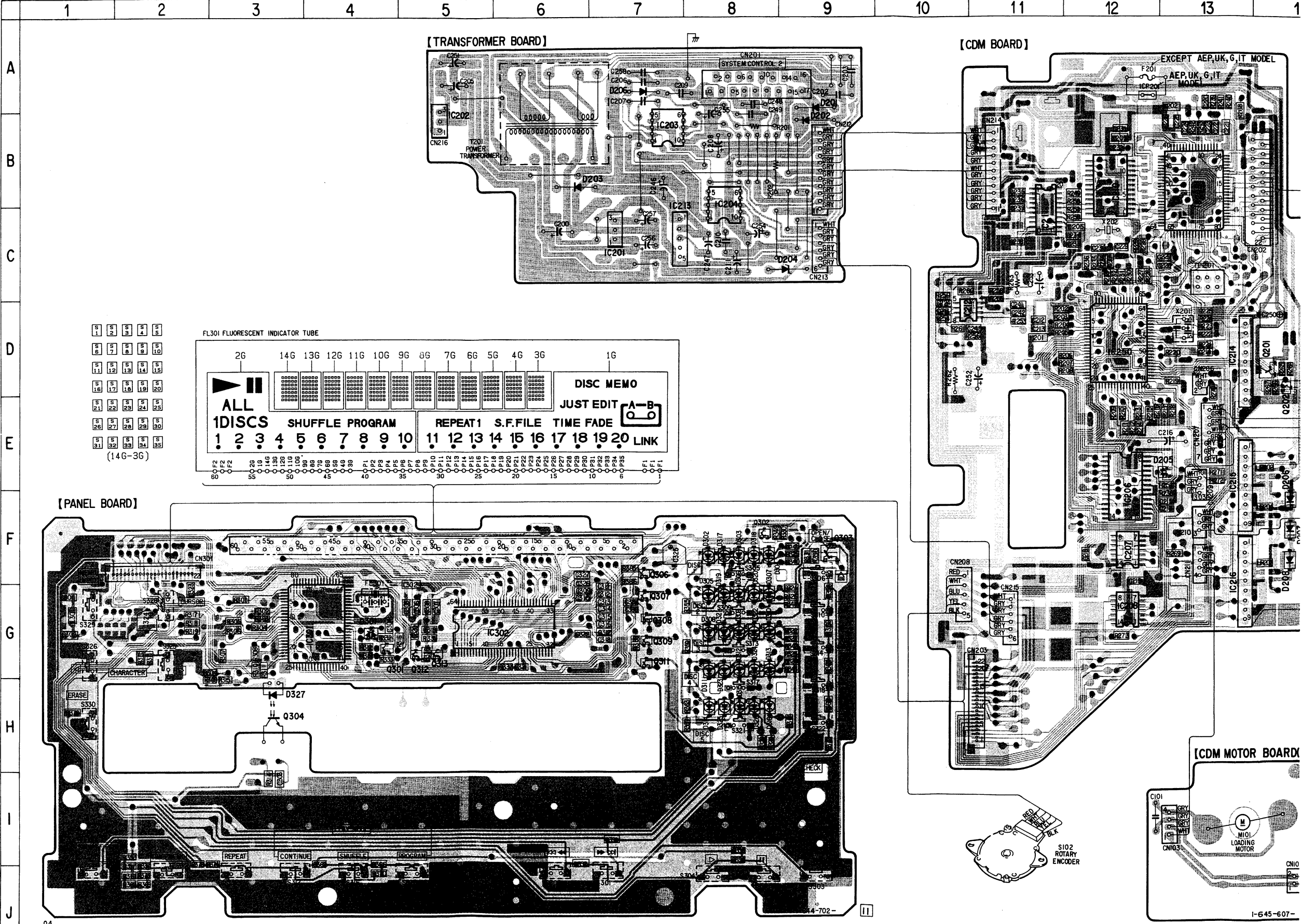
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D201	A-9	IC101	B-16
D202	B-9	IC102	B-17
D203	B-6	IC201	C-7
D204	C-9	IC202	B-5
D205	E-13	IC203	B-7
D206	F-14	IC204	B-8
(D206)	A-7	IC206	E-12
D207	F-14	IC207	F-12
D208	F-14	IC208	G-12
D301	G-4	IC209	B-13
D302	F-8	IC210	B-12
D303	F-8	IC211	C-11
D304	F-8	IC212	D-10
D305	G-8	IC213	C-7
D306	G-8	IC214	D-13
D307	G-8	IC215	E-13
D308	G-8	IC216	F-13
D309	G-8	IC250	D-12
D310	G-8	IC301	G-4
D311	G-8	IC302	G-6
D312	G-8	IC401	G-17
D313	G-8	IC601	F-15
D314	H-8		
D315	H-8	Q101	C-16
D316	H-8	Q201	D-14
D317	F-8	Q202	D-14
D318	F-8	Q301	G-4
D319	G-8	Q302	F-8
D320	G-8	Q303	F-9
D321	G-8	Q304	H-3
D322	G-8	Q306	F-7
D323	G-8	Q307	G-7
D324	G-8	Q308	G-7
D325	H-8	Q309	G-7
D326	H-8	Q311	G-7
D327	H-3	Q312	G-5
		Q313	G-5

(): TRANSFORMER BOARD

- Note:
- : parts extracted from the component side.
 - : Through hole.
 - ▨ : Pattern on the side which is seen.
 - ▩ : Pattern of the rear side.
 - G: Germany model
 - IT: Italian model

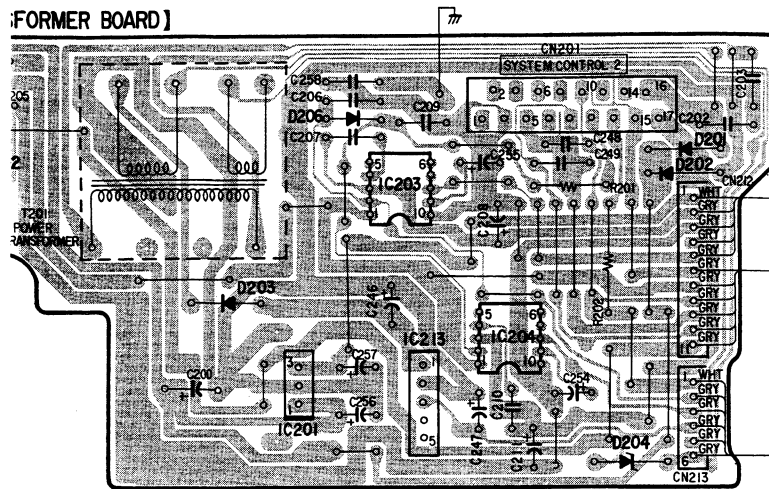
4-3. PRINTED WIRING BOARDS • Refer to page 9 for Semiconductor Lead Layouts.



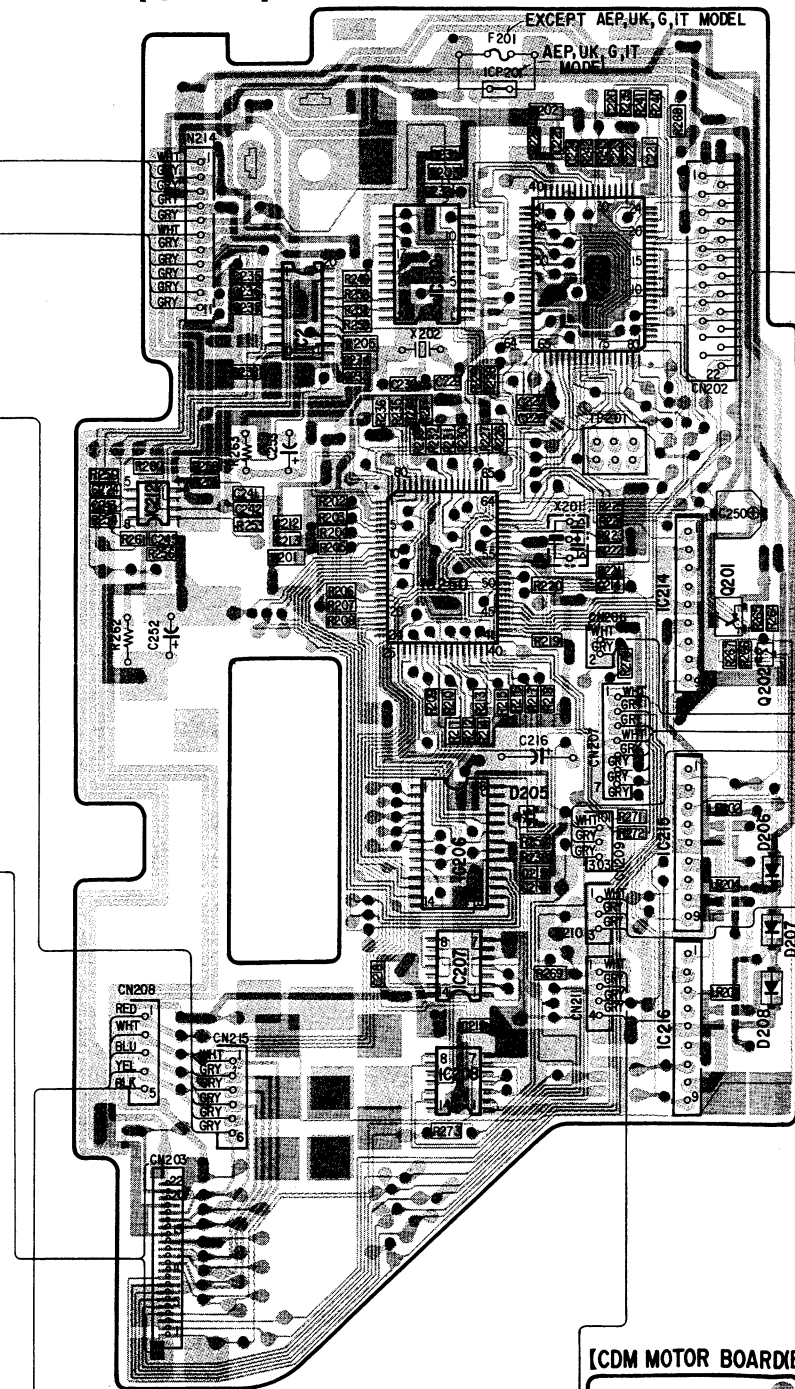
ad Layouts.

	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
--	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----

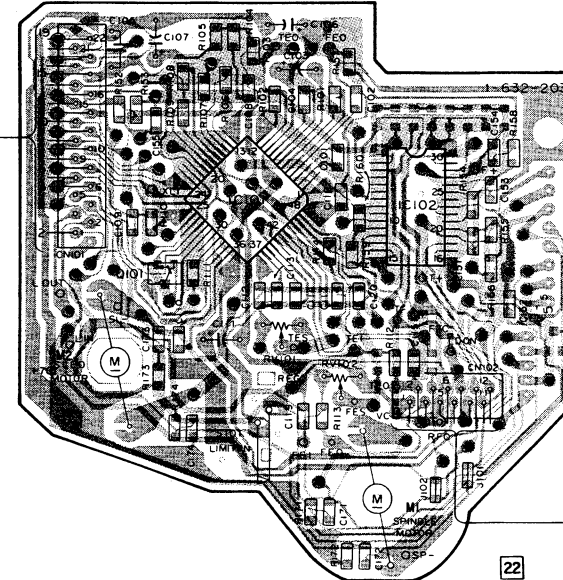
FORMER BOARD]



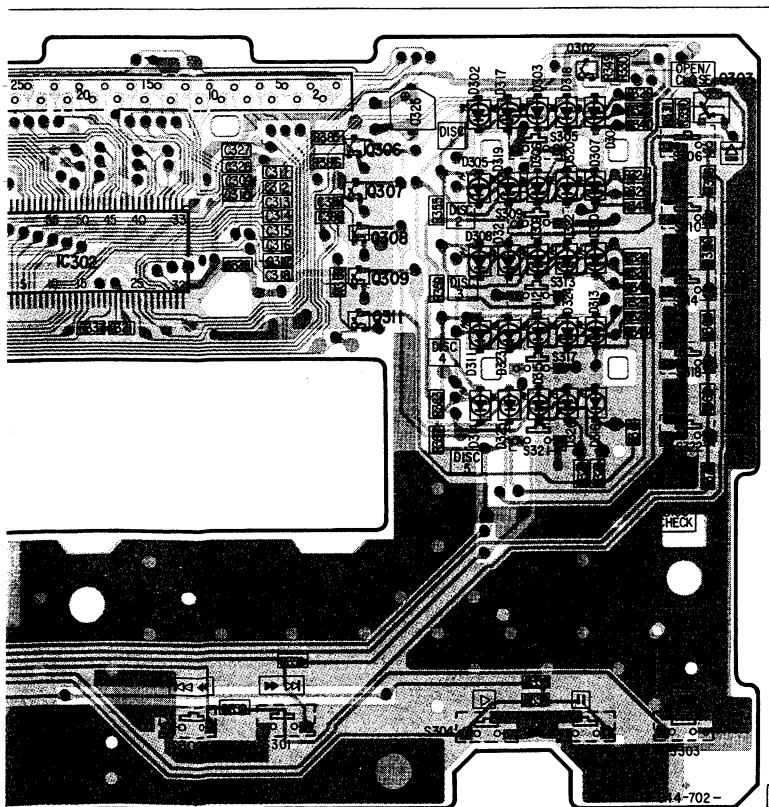
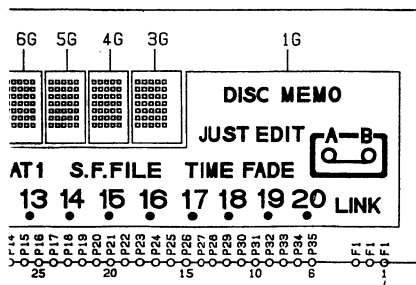
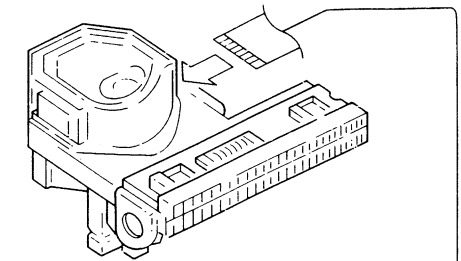
【CDM BOARD】



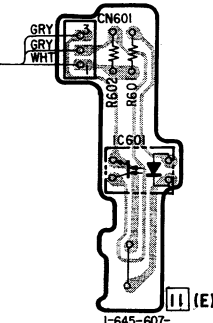
【BD BOARD】



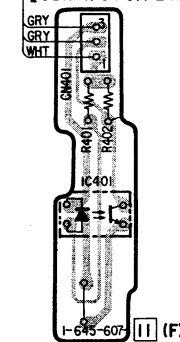
OPTICAL PICK-UP BLOCK
(KSS-240A)



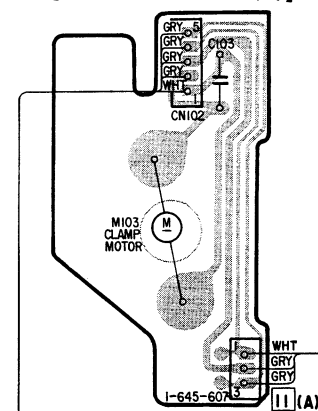
【CDM MOTOR BOARD(E)】



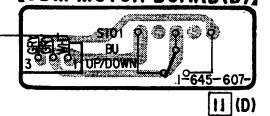
【CDM MOTOR BOARD(F)】



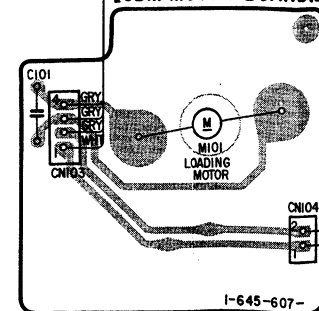
【CDM MOTOR BOARD(A)】



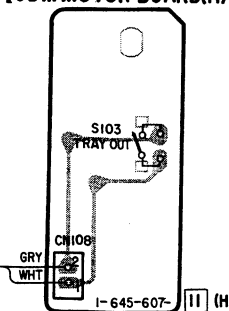
[CDM MOTOR BOARD(D)]



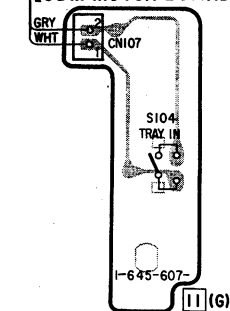
[CDM MOTOR BOARD(B)]



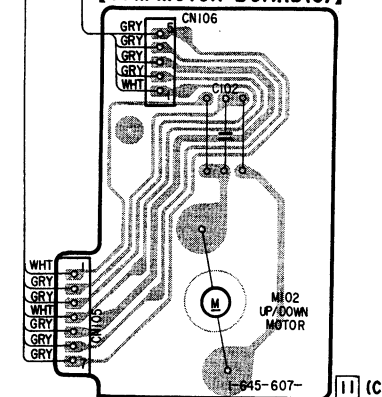
[CDM MOTOR BOARD(H)]

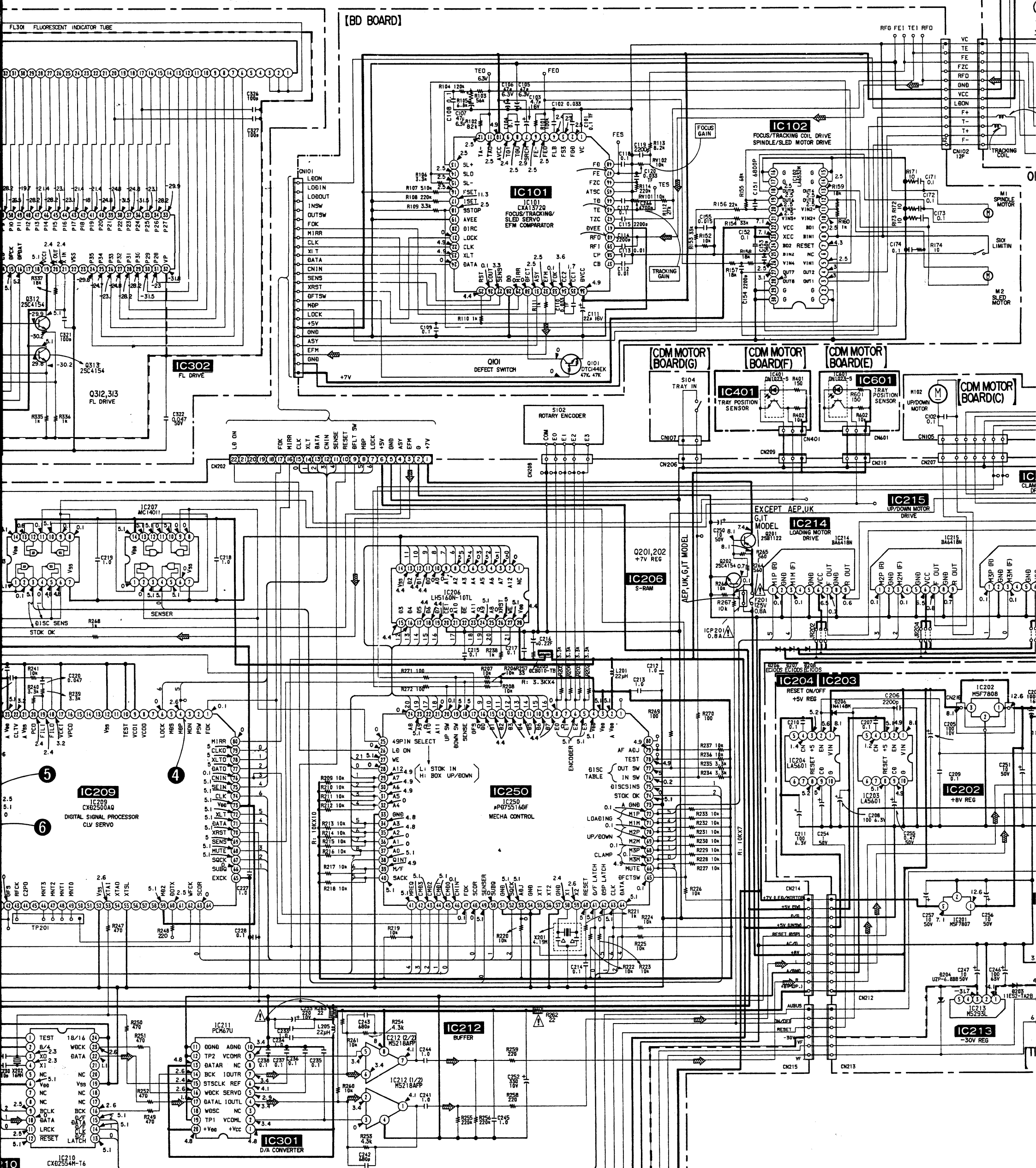


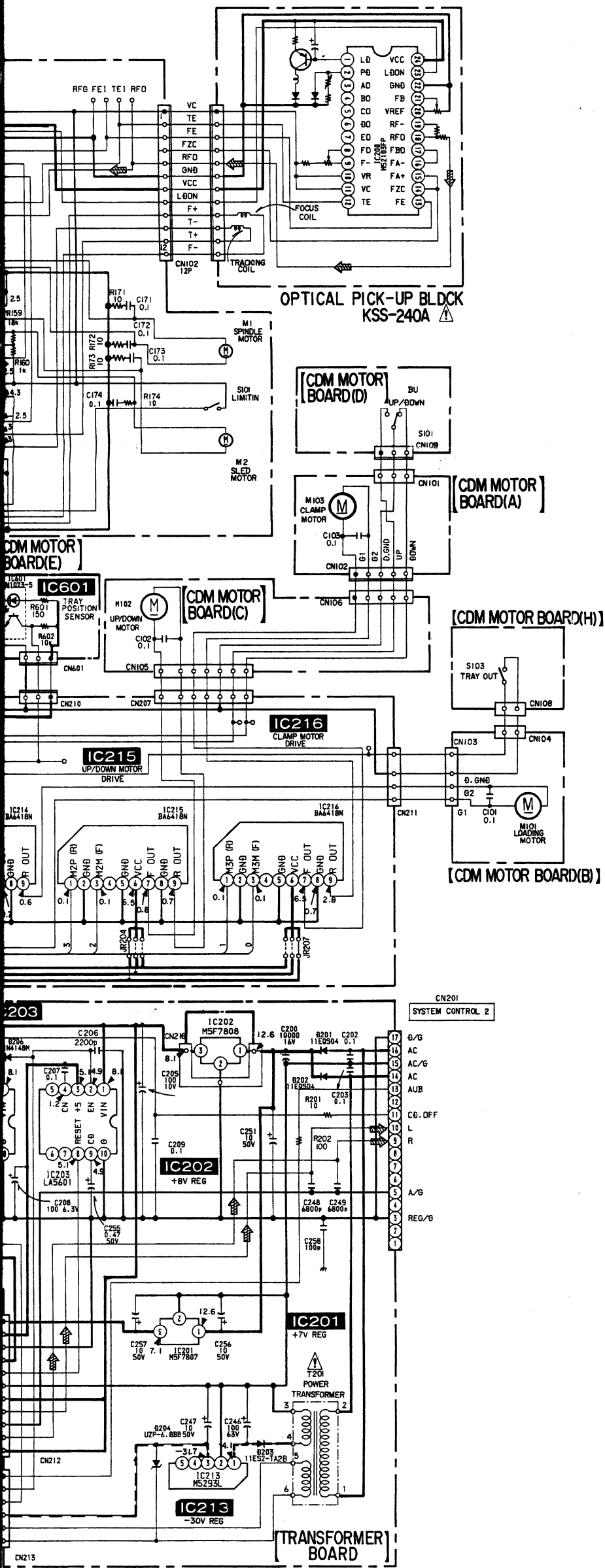
[CDM MOTOR BOARD(G)]



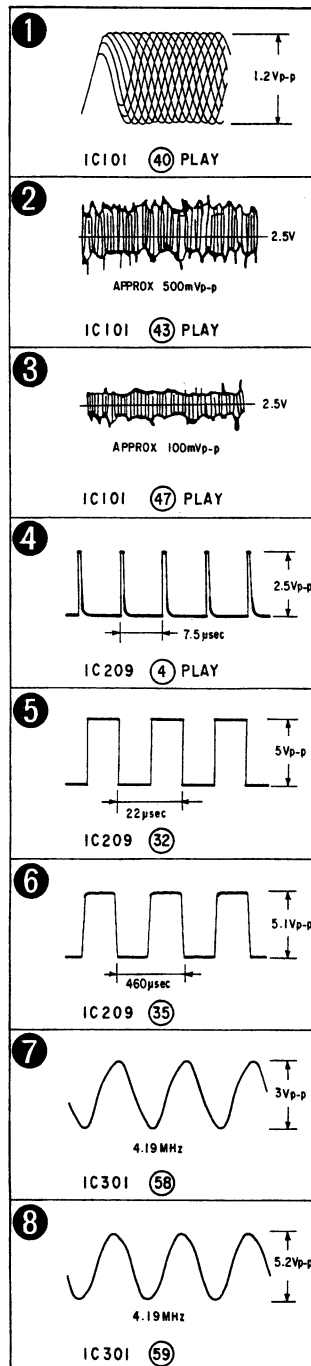
[CDM MOTOR BOARD(C)]







Waveforms



Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- $\triangle$: internal component.
- $\square$: nonflammable resistor.

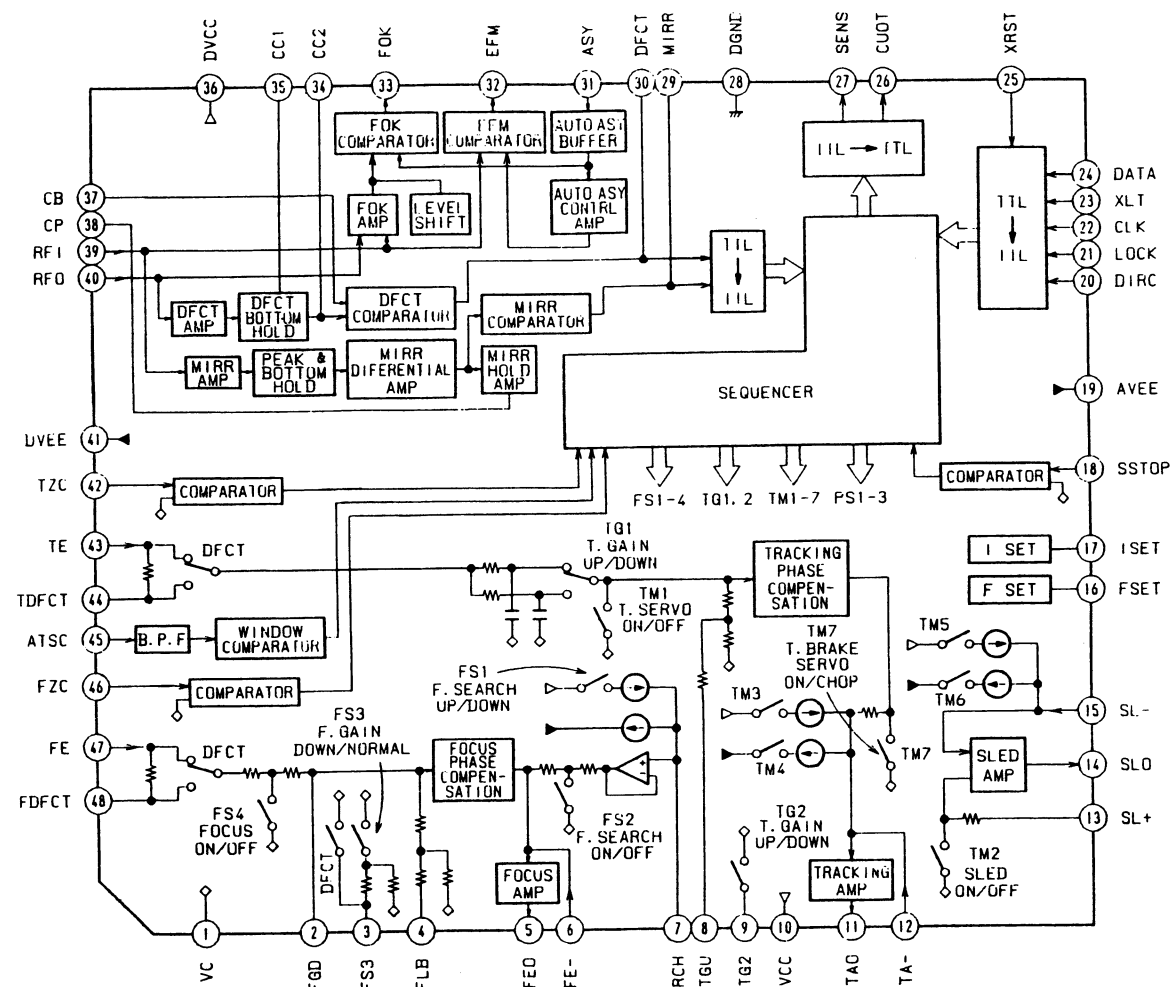
Note:
The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque $\triangle$ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

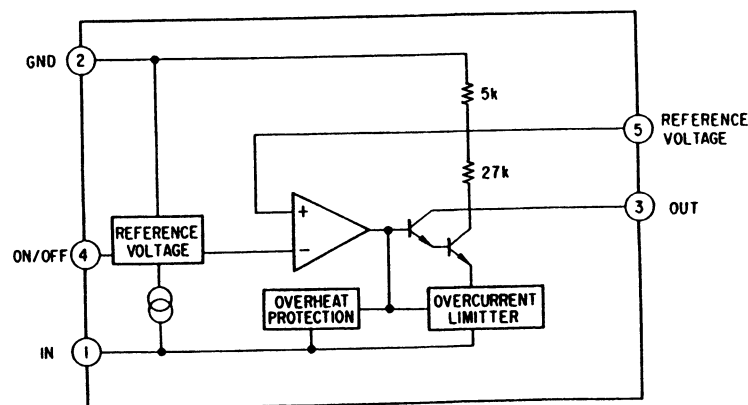
- —: B+ Line
- ---: B- Line
- $\square$: adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark: STOP
- Voltages are taken with a VOM (Input Impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- $\square$: CD
- G: Germany model
- IT: Italian model

● IC Block Diagrams

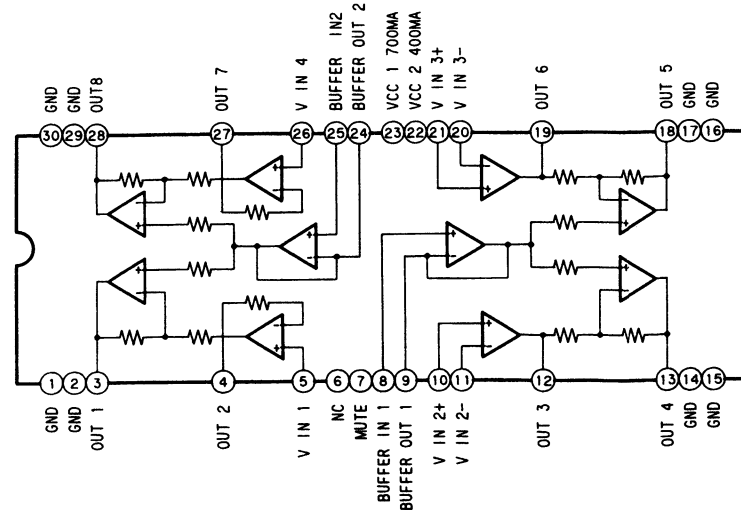
IC101 CXA1372Q



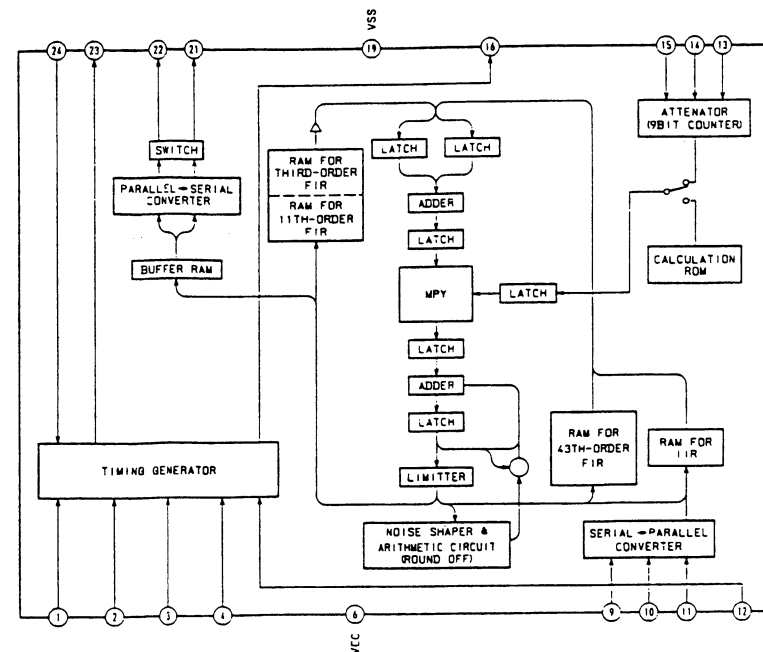
IC213 M5293L



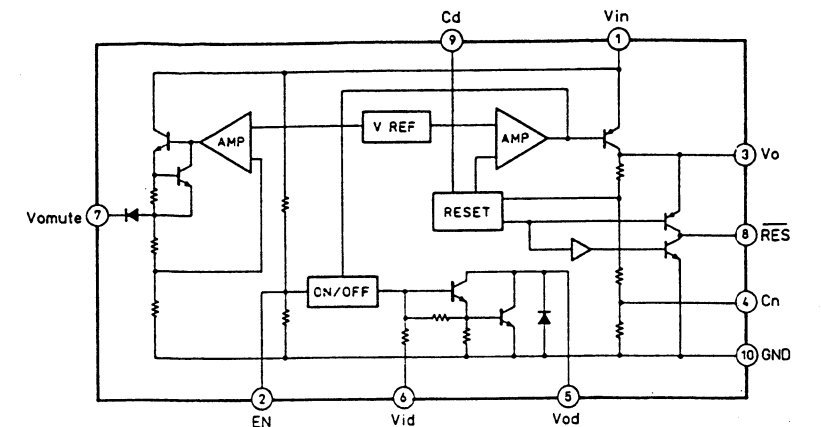
IC102 LA6532M



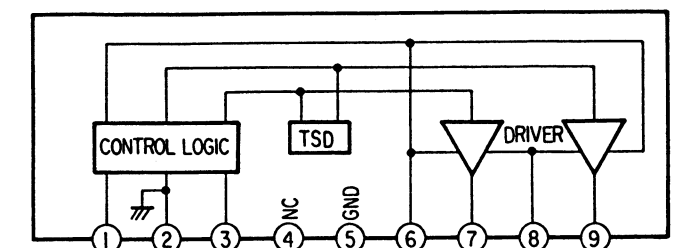
IC210 CXD2554M



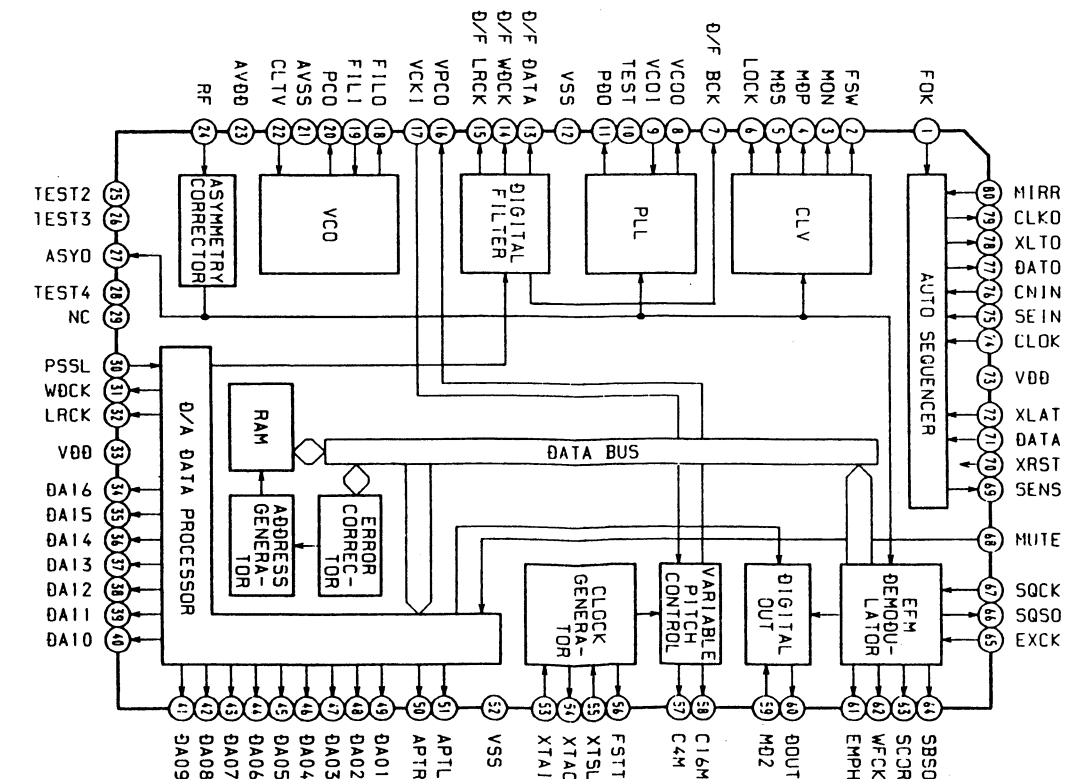
IC203, 204 LA5601



IC214-216 BA6418N



IC209 CXD2500AQ



SECTION 5

EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

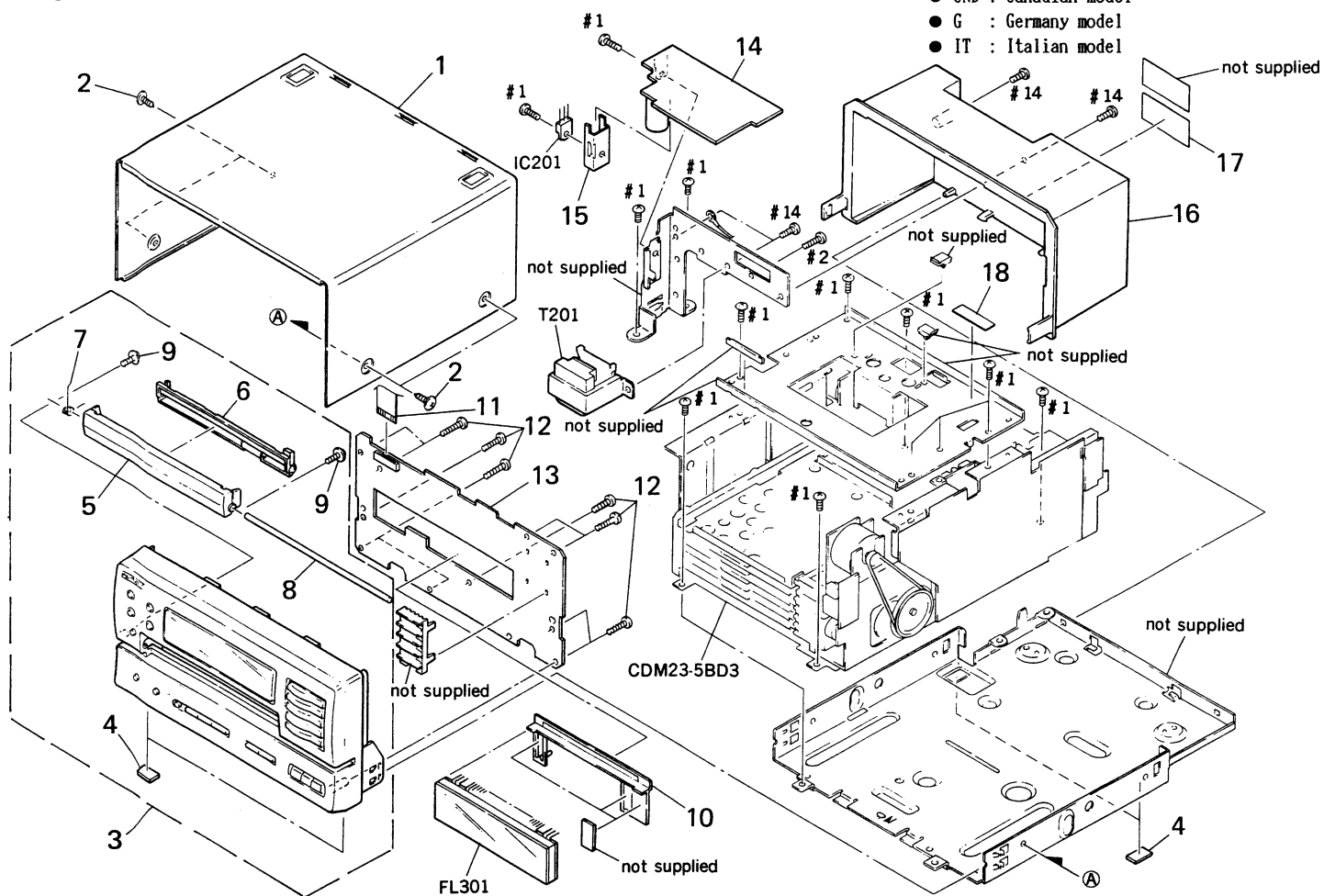
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example :
 KNOB, BALANCE (WHITE)... (RED)
 ↑ ↑
 Parts Color Cabinet's Color
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark  or dotted line with mark.  are critical for safety. Replace only with part number specified.

Les composants identifiés par une
marque  sont critiques pour
la sécurité.
Ne les remplacer que par une pièce
portant le numéro spécifié.

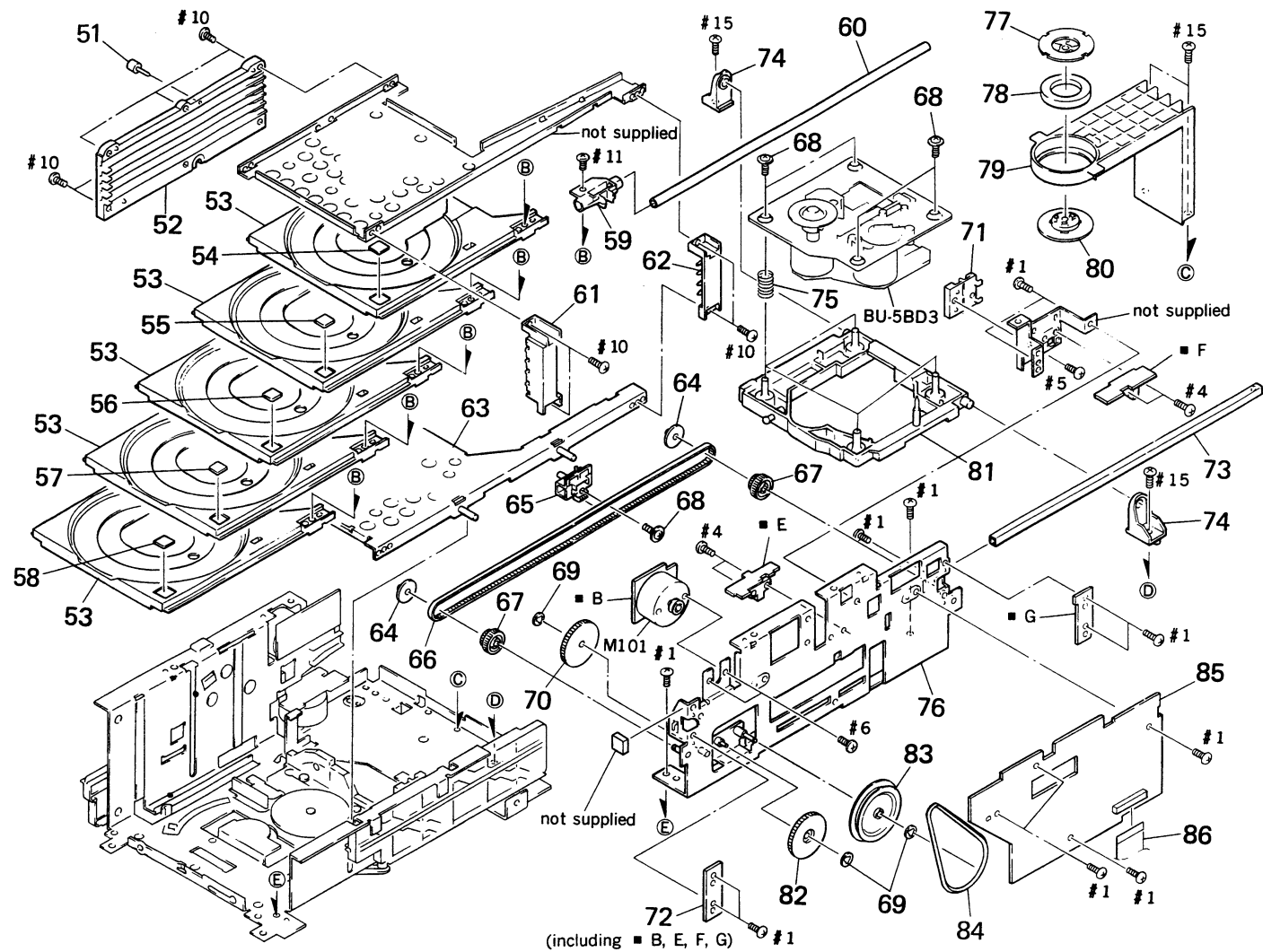
- CND : Canadian model
- G : Germany model
- IT : Italian model

5-1. CABINET SECTION



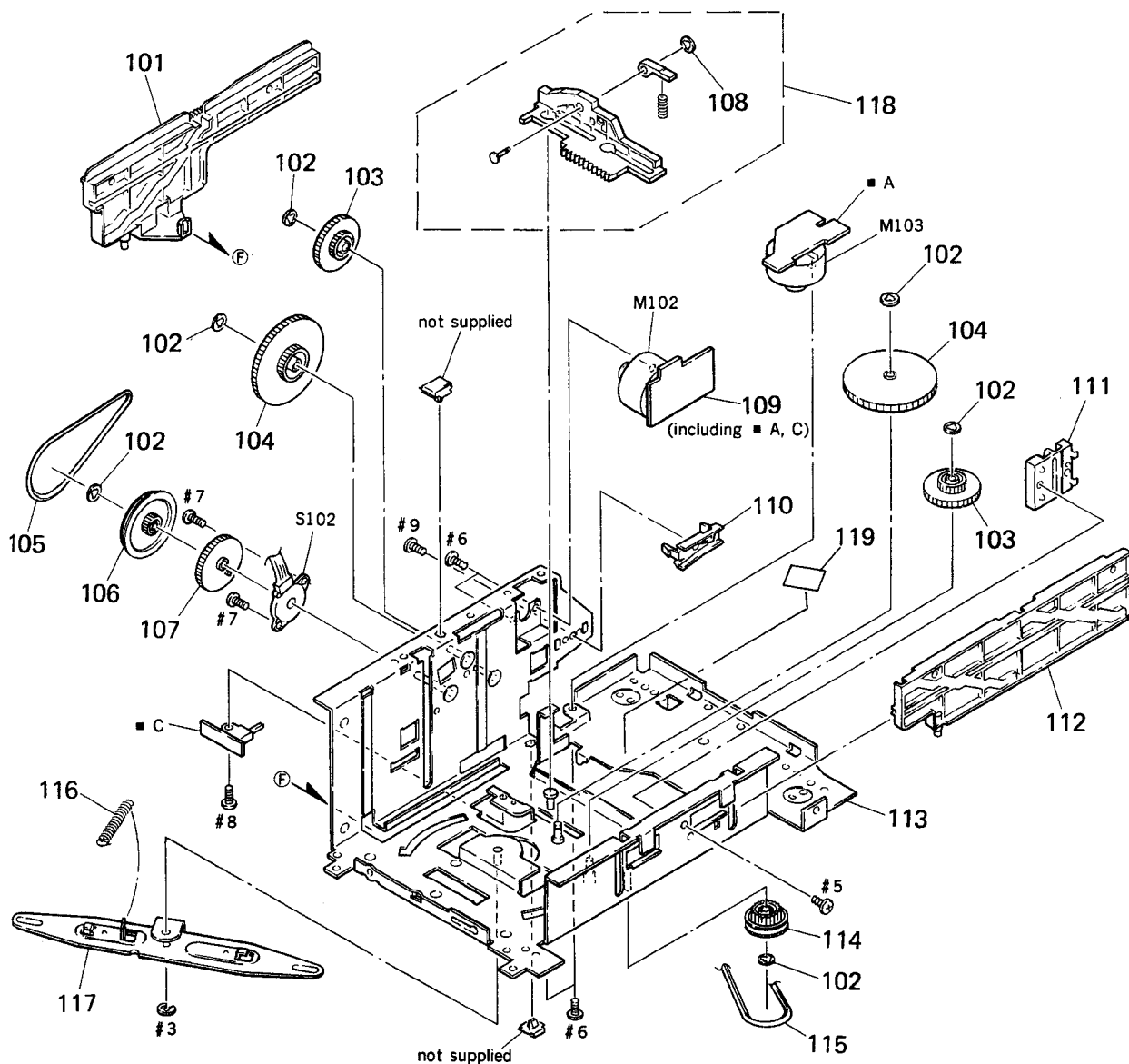
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 1	4-944-522-42	CASE (K211522)		* 13	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
2	3-363-099-01	SCREW (CASE 3 TP2)		* 13	A-4649-462-A	PANEL BOARD, COMPLETE (G)	
3	X-4942-946-1	PANEL ASSY, FRONT		* 13	A-4649-465-A	PANEL BOARD, COMPLETE (AEP, UK, IT)	
4	4-930-336-21	FOOT (FELT)		* 14	A-4649-456-A	TRANSFORMER BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
5	4-954-694-01	DOOR (A)		* 14	A-4649-461-A	TRANSFORMER BOARD, COMPLETE (G)	
6	4-954-698-01	DOOR (B)		* 14	A-4649-464-A	TRANSFORMER BOARD, COMPLETE (AEP, UK, IT)	
7	4-954-693-01	SPRING (DOOR)		* 15	3-309-144-21	HEAT SINK	
8	4-954-695-01	SHAFT (DOOR)		* 16	4-954-699-01	PANEL, BACK	
9	4-933-134-01	SCREW (+PTPHW M2. 6X6)		* 17	4-941-548-01	LABEL, CLASS 1 (EXCEPT US, CND)	
* 10	4-954-701-01	HOLDER (FL TUBE)		* 18	3-703-044-26	LABEL, CAUTION (CND)	
11	1-696-633-11	WIRE (FLAT TYPE)		FL301	1-519-738-11	INDICATOR TUBE, FLUORESCENT	
12	4-951-620-01	SCREW (2. 6X8), +BVTP		IC201	8-759-071-48	IC M5F7807L	
				△T201	1-450-984-11	TRANSFORMER, POWER	

5-2. CD MECHANISM NECTION (1) (CDM23-5BD3)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-954-649-01	SHAFT (ST-L)		* 71	4-954-621-01	STOPPER (TB)	
52	4-954-644-01	BRACKET (STOCKER L)		* 72	1-645-607-11	CDM MOTOR BOARD	
53	4-954-638-01	TABLE, DISK		* 73	4-954-631-01	SHAFT (SL GUIDE)	
54	4-954-651-01	EMBLEM (TABLE)		* 74	4-954-623-01	FULCRUM (BU)	
55	4-954-651-11	EMBLEM (TABLE)		75	4-948-503-01	SPRING (BU), COMPRESSION	
56	4-954-651-21	EMBLEM (TABLE)		* 76	X-4942-941-1	BRACKET (SL-A) ASSY	
57	4-954-651-31	EMBLEM (TABLE)		77	4-929-762-01	YOKE, CHUCKING	
58	4-954-651-41	EMBLEM (TABLE)		78	1-452-676-11	MAGNET	
59	4-954-639-01	GUIDE (TB)		79	4-954-650-01	HOLDER (MG)	
60	4-954-648-01	SHAFT (TABLE GUIDE)		80	4-955-230-01	PULLEY (CHECKING)	
61	4-954-645-01	GUIDE (ST-RF)		* 81	X-4942-942-1	HOLDER (BU) ASSY	
62	4-954-646-01	GUIDE (ST-RR)		82	4-954-625-01	GEAR (CDM)	
* 63	X-4942-943-1	BRACKET (ST-B) ASSY		83	3-372-516-01	PULLEY (LOADING)	
64	4-954-628-01	FLANGE (PULLEY)		84	4-954-624-01	BELT (CDM)	
65	4-954-630-01	SLIDER (TB)		* 85	A-4649-352-A	CDM BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
66	4-954-634-01	BELT (SL)		* 85	A-4649-463-A	CDM BOARD, COMPLETE (G)	
67	4-954-629-01	PULLEY (SL)		* 85	A-4649-466-A	CDM BOARD, COMPLETE (AEP, UK, IT)	
68	4-933-134-01	SCREW (+PTPWH M2. 6X6)		86	1-696-634-11	WIRE (FLAT TYPE)	
69	3-669-595-00	WASHER (2), STOPPER		M101	A-4660-232-A	MOTOR (CDM) ASSY	
70	4-954-627-01	GEAR (SL)					

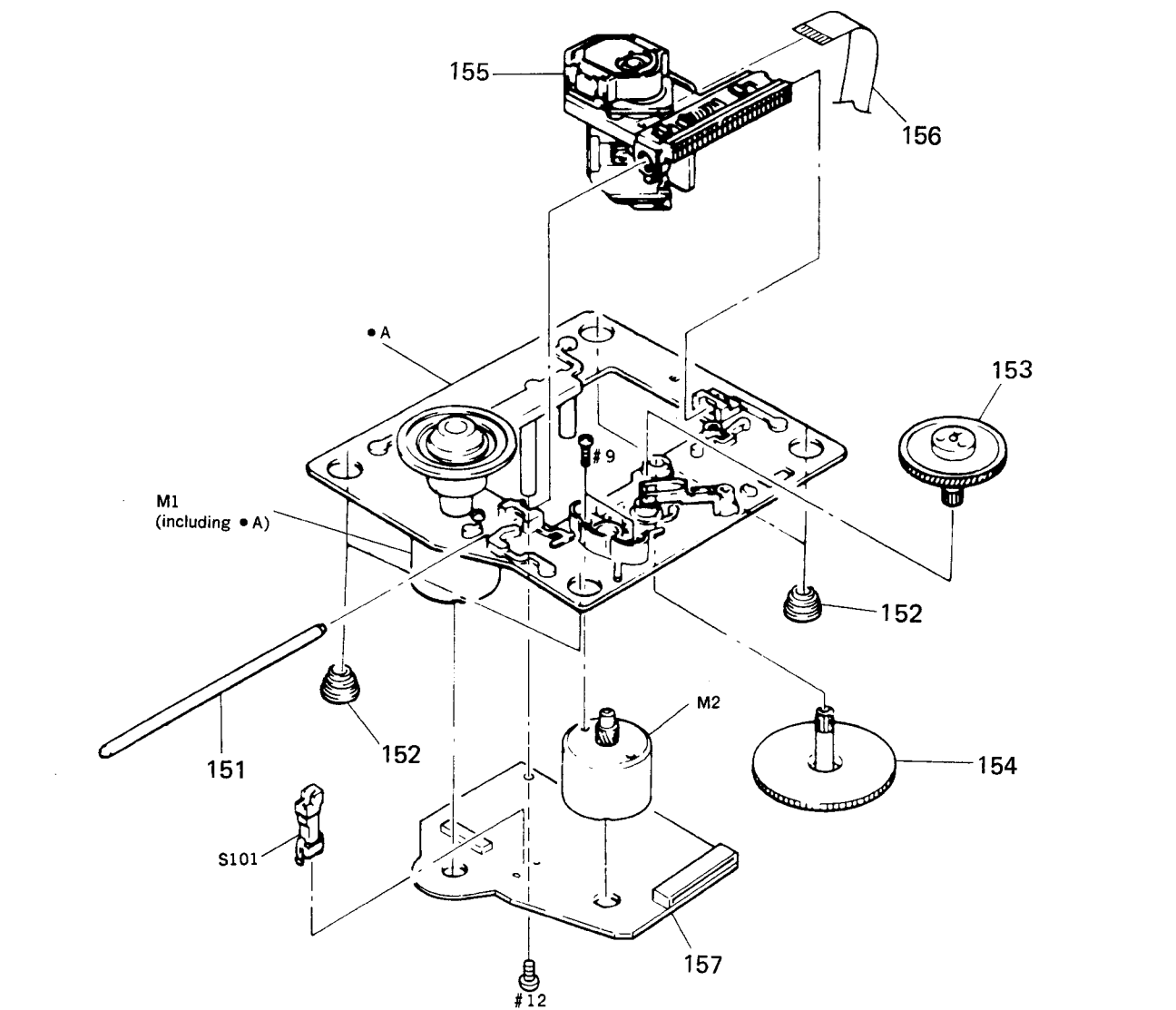
5-3. CD MECHANISM SECTION (2) (CDM23-5BD3)



Ref. No.	Part No.	Description	Remark
101	X-4942-939-1	SLIDER (ST-L) ASSY	
102	3-669-595-00	WASHER (2), STOPPER	
103	4-954-625-01	GEAR (CDM)	
104	3-372-517-01	GEAR (LOADING)	
105	4-954-624-01	BELT (CDM)	
106	3-372-516-01	PULLEY (LOADING)	
107	4-954-636-01	GEAR (E)	
108	3-681-678-00	WASHER, SLIT	
* 109	1-645-607-11	CDM MOTOR BOARD	
* 110	4-954-633-01	GUIDE (TB-LR)	
* 111	4-954-621-01	STOPPER (TB)	

Ref. No.	Part No.	Description	Remark
112	X-4942-940-1	SLIDER (ST-R) ASSY	
* 113	X-4942-937-1	CHASSIS (CDM) ASSY	
114	4-954-637-01	PULLEY (BU)	
115	4-954-635-01	BELT (BU)	
116	4-955-168-01	SPRING, TENSION	
* 117	4-954-632-01	LEVER (JOINT)	
118	A-4660-167-A	SLIDER (BU CAM) ASSY	
* 119	4-928-473-01	INSULATOR	
M102	A-4460-232-A	MOTOR (CDM) ASSY	
M103	A-4460-232-A	MOTOR (CDM) ASSY	
S102	1-466-819-11	ENCORDER, ROTARY	

5-4. OPTICAL PICK-UP SECTION (BU-5BD3)



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref.No.	Part No.	Description	Remark
151	4-917-565-01	SHAFT, SLED	
152	4-951-940-01	INSULATOR (BU)	
153	4-917-567-01	GEAR (M)	
154	4-917-564-01	GEAR (P), FLATNESS	
Δ 155	8-848-144-11	DEVICE, OPTICAL KSS-240A	

Ref.No.	Part No.	Description	Remark
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
* 157	A-4617-371-A	BD BOARD, COMPLETE	
M1	X-4917-523-3	MOTOR ASSY, SPINDLE	
M2	X-4917-504-1	MOTOR ASSY, SLED	
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	

SECTION 6

ELECTRICAL PARTS LIST

BD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

- XX and -X mean standardized parts, so they may have some difference from the original one.

RESISTORS

All resistors are in ohms.

METAL: Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

SEMICONDUCTORS

In each case, u: μ , for example:uA...: μ A... uPA...: μ PA...uPB...: μ PB... uPC...: μ PC... uPD...: μ PD...

CAPACITORS

uF: μ F

COILS

uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

- CND : Canadian model
- G : Germany model
- IT : Italian model

Ref. No.	Part No.	Description	Remark
*	A-4617-371-A	BD BOARD, COMPLETE *****	
< CAPACITOR >			
C101	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C102	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C103	1-126-163-11	ELECT 4.7uF	20% 50V
C104	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C105	1-126-154-11	ELECT 47uF	20% 6.3V
C106	1-126-154-11	ELECT 47uF	20% 6.3V
C107	1-126-154-11	ELECT 47uF	20% 6.3V
C108	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C109	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C110	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C111	1-131-367-00	TANTALUM 22uF	10% 20V
C112	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C113	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C114	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C115	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C117	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C118	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C119	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C120	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C151	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C152	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C153	1-163-006-11	CERAMIC CHIP 560PF	10% 50V
C154	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C155	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V
C171	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C172	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C173	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C174	1-163-038-00	CERAMIC CHIP 0.1uF	25V
< CONNECTOR >			
CN101	1-568-796-11	SOCKET, CONNECTOR 22P	
CN102	1-568-795-11	SOCKET, CONNECTOR 12P	
< IC >			
IC101	8-752-053-73	IC CXA1372AQ	

Ref. No.	Part No.	Description	Remark
IC102	8-759-822-36	IC LA6532M	
< JUMPER RESISTOR >			
J101	1-216-295-00	METAL CHIP 0 5%	1/10W
J102	1-216-295-00	METAL CHIP 0 5%	1/10W
< TRANSISTOR >			
Q101	8-729-901-01	TRANSISTOR DTC144EK	
< RESISTOR >			
R101	1-216-097-00	METAL CHIP 100K 5%	1/10W
R102	1-216-095-00	METAL CHIP 82K 5%	1/10W
R103	1-216-091-00	METAL CHIP 56K 5%	1/10W
R104	1-216-099-00	METAL CHIP 120K 5%	1/10W
R105	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R106	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R107	1-216-114-00	METAL GLAZE 510K 5%	1/10W
R108	1-216-105-00	METAL CHIP 220K 5%	1/10W
R109	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R110	1-216-049-00	METAL CHIP 1K 5%	1/10W
R111	1-216-049-00	METAL CHIP 1K 5%	1/10W
R112	1-216-083-00	METAL CHIP 27K 5%	1/10W
R113	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
R114	1-216-105-00	METAL CHIP 220K 5%	1/10W
R152	1-216-073-00	METAL CHIP 10K 5%	1/10W
R153	1-216-085-00	METAL CHIP 33K 5%	1/10W
R154	1-216-085-00	METAL CHIP 33K 5%	1/10W
R155	1-216-093-00	METAL CHIP 68K 5%	1/10W
R156	1-216-081-00	METAL CHIP 22K 5%	1/10W
R157	1-216-079-00	METAL CHIP 18K 5%	1/10W
R158	1-216-079-00	METAL CHIP 18K 5%	1/10W
R159	1-216-079-00	METAL CHIP 18K 5%	1/10W
R160	1-216-049-00	METAL CHIP 1K 5%	1/10W
R171	1-216-001-00	METAL CHIP 10 5%	1/10W
R172	1-216-001-00	METAL CHIP 10 5%	1/10W
R173	1-216-001-00	METAL CHIP 10 5%	1/10W
R174	1-216-001-00	METAL CHIP 10 5%	1/10W

BD

CDM

Ref. No.	Part No.	Description	Remark
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< VARIABLE RESISTOR >

RV101	1-238-600-11	RES, ADJ, CARBON 10K	
RV101	1-241-630-11	RES, ADJ, CARBON 10K	
RV102	1-238-600-11	RES, ADJ, CARBON 10K	
RV102	1-241-630-11	RES, ADJ, CARBON 10K	

< SWITCH >

S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	
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*	A-4649-352-A	CDM BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-463-A	CDM BOARD, COMPLETE (G)	
*	A-4649-466-A	CDM BOARD, COMPLETE (AEP, UK, IT)	

*	4-942-204-01	PLATE, GROUND	
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< CAPACITOR >

C212	1-164-346-11	CERAMIC CHIP 1uF	16V
C213	1-164-346-11	CERAMIC CHIP 1uF	16V
C214	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C215	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C216	1-125-486-11	DOUBLE LAYERS 0.22F	5.5V

C217	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C218	1-164-346-11	CERAMIC CHIP 1uF	16V
C219	1-164-346-11	CERAMIC CHIP 1uF	16V
C220	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C221	1-163-145-00	CERAMIC CHIP 0.0015uF	5% 50V

C222	1-164-346-11	CERAMIC CHIP 1uF	16V
C223	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C224	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C225	1-164-346-11	CERAMIC CHIP 1uF	16V
C226	1-164-346-11	CERAMIC CHIP 1uF	16V

C227	1-164-346-11	CERAMIC CHIP 1uF	16V
C228	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C229	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C230	1-163-227-11	CERAMIC CHIP 10PF	5% 50V
C231	1-164-346-11	CERAMIC CHIP 1uF	16V

C232	1-164-346-11	CERAMIC CHIP 1uF	16V
C233	1-164-346-11	CERAMIC CHIP 1uF	16V
C234	1-164-346-11	CERAMIC CHIP 1uF	16V
C235	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C236	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V

C237	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C238	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C241	1-164-346-11	CERAMIC CHIP 1uF	16V
C242	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C243	1-163-137-00	CERAMIC CHIP 680PF	5% 50V

C244	1-164-346-11	CERAMIC CHIP 1uF	16V
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Ref. No.	Part No.	Description	Remark
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C245	1-164-346-11	CERAMIC CHIP 1uF	16V
C250	1-126-405-11	ELECT CHIP 10uF	20% 50V
C252	1-126-924-11	ELECT 330uF	20% 10V
C253	1-126-923-11	ELECT 220uF	20% 10V

< CONNECTOR >

* CN202	1-695-629-11	CONNECTOR, FFC/FPC (ZIF) 22P	
CN203	1-580-891-11	SOCKET, CONNECTOR (SMT) 22P	
* CN206	1-568-951-11	PIN, CONNECTOR 2P	
* CN208	1-573-275-11	PIN, CONNECTOR 5P	
CN209	1-506-468-11	PIN, CONNECTOR 3P	

CN210	1-506-468-11	PIN, CONNECTOR 3P	
CN211	1-506-469-11	PIN, CONNECTOR 4P	

< DIODE >

D205	8-719-990-39	DIODE DCB010	
D206	8-719-210-33	DIODE EC10DS2	
D207	8-719-210-33	DIODE EC10DS2	
D208	8-719-210-33	DIODE EC10DS2	

< FUSE >

△F201	1-532-775-11	FUSE, MICRO (SECONDARY) 125V, 0.8A (EXCEPT AEP, UK, G, IT)	
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< IC >

IC206	8-759-512-81	IC LH5160N-10L	
IC207	8-759-008-79	IC MC14011BF	
IC208	8-759-009-21	IC MC14093BF	
IC209	8-752-337-26	IC CXD2500AQ	
IC210	8-752-337-10	IC CXD2554M	

IC211	8-759-506-63	IC PCM67U	
IC212	8-759-636-55	IC M5218AFP	
IC214	8-759-501-73	IC BA6418N	
IC215	8-759-501-73	IC BA6418N	
IC216	8-759-501-73	IC BA6418N	

IC250	8-759-076-35	IC uPD75516GF-399-3B9	
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< IC LINK >

△ICP201	1-532-838-21	LINK, IC 0.3A (AEP, UK, G, IT)	
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< JUMPER RESISTOR >

JR202	1-216-295-00	METAL CHIP 0	5%	1/10W
JR204	1-216-295-00	METAL CHIP 0	5%	1/10W
JR207	1-216-295-00	METAL CHIP 0	5%	1/10W

< COIL >

L201	1-410-385-11	INDUCTOR CHIP 22uH	
L202	1-410-385-11	INDUCTOR CHIP 22uH	

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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CDM

CDM MOTOR

Ref. No.	Part No.	Description	Remark
L203	1-410-385-11	INDUCTOR CHIP 22uH	
L205	1-410-385-11	INDUCTOR CHIP 22uH	
< TRANSISTOR >			
Q201	8-729-804-41	TRANSISTOR 2SB1122-S	
Q202	8-729-602-21	TRANSISTOR 2SC4154-F	
< RESISTOR >			
R202	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R203	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R204	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R205	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R206	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R207	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R208	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R209	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R210	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R211	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R212	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R213	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R214	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R215	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R216	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R217	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R218	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R219	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R220	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R221	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R222	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R223	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R224	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R225	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R226	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R227	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R228	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R229	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R230	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R231	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R232	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R233	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R234	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R235	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R236	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R237	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R238	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R239	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R240	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R241	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R242	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R243	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R244	1-216-041-00	METAL CHIP 470 5% 1/10W	
R245	1-216-041-00	METAL CHIP 470 5% 1/10W	
R246	1-216-041-00	METAL CHIP 470 5% 1/10W	
R247	1-216-041-00	METAL CHIP 470 5% 1/10W	
R248	1-216-033-00	METAL CHIP 220 5% 1/10W	
R249	1-216-041-00	METAL CHIP 470 5% 1/10W	
R250	1-216-041-00	METAL CHIP 470 5% 1/10W	
R251	1-216-041-00	METAL CHIP 470 5% 1/10W	
R252	1-216-041-00	METAL CHIP 470 5% 1/10W	
R253	1-216-064-00	METAL CHIP 4.3K 5% 1/10W	
R254	1-216-064-00	METAL CHIP 4.3K 5% 1/10W	
R255	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R256	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R257	1-216-013-00	METAL CHIP 33 5% 1/10W	
R258	1-216-033-00	METAL CHIP 220 5% 1/10W	
R259	1-216-033-00	METAL CHIP 220 5% 1/10W	
R260	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R261	1-216-073-00	METAL CHIP 10K 5% 1/10W	
△R262	1-249-397-11	CARBON 22 5% 1/4W F	
△R263	1-249-397-11	CARBON 22 5% 1/4W F	
R264	1-216-043-00	METAL CHIP 560 5% 1/10W	
R265	1-216-043-00	METAL CHIP 560 5% 1/10W	
R266	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R267	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R268	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R269	1-216-025-00	METAL CHIP 100 5% 1/10W	
R270	1-216-025-00	METAL CHIP 100 5% 1/10W	
R271	1-216-025-00	METAL CHIP 100 5% 1/10W	
R272	1-216-025-00	METAL CHIP 100 5% 1/10W	
R273	1-216-025-00	METAL CHIP 100 5% 1/10W	

< TEST PIN >

* TP201 1-695-630-11 PIN, CONNECTOR 6P

< VIBRATOR >

X201 1-577-359-21 VIBRATOR, CERAMIC (4.19MHz)

X202 1-567-908-11 VIBRATOR, CRYSTAL (16MHz)

* 1-645-607-11 CDM MOTOR BOARD

< CAPACITOR >

C101 1-164-159-11 CERAMIC 0.1uF 50V

C102 1-164-159-11 CERAMIC 0.1uF 50V

C103 1-164-159-11 CERAMIC 0.1uF 50V

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

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CDM MOTOR

PANEL

Ref.No.	Part No.	Description	Remark
< CONNECTOR >			
* CN105	1-568-934-11	PIN, CONNECTOR 7P	
* CN106	1-568-954-11	PIN, CONNECTOR 5P	
< IC >			
IC401	8-759-071-52	IC ON1023-S	
IC601	8-759-071-52	IC ON1023-S	
< RESISTOR >			
△R401	1-249-407-11	CARBON 150 5% 1/4W F	
R402	1-249-429-11	CARBON 10K 5% 1/4W	
△R601	1-249-407-11	CARBON 150 5% 1/4W F	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
< SWITCH >			
S101	1-571-300-21	SWITCH, ROTARY (BU UP/DOWN)	
S103	1-692-080-11	SWITCH, PUSH (1 KEY) (TRAY OUT)	
S104	1-692-080-11	SWITCH, PUSH (1 KEY) (TRAY IN)	

*	A-4649-455-A	PANEL BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-462-A	PANEL BOARD, COMPLETE (G)	
*	A-4649-465-A	PANEL BOARD, COMPLETE (AEP, UK, IT)	

*	4-954-701-01	HOLDER (FL TUBE)	
< CAPACITOR >			
C301	1-164-346-11	CERAMIC CHIP 1uF 16V	
C302	1-164-346-11	CERAMIC CHIP 1uF 16V	
C303	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C304	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C305	1-164-346-11	CERAMIC CHIP 1uF 16V	
C306	1-164-346-11	CERAMIC CHIP 1uF 16V	
C307	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C308	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C309	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C310	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C311	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C312	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C313	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C314	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C315	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C316	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C317	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C318	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C319	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C320	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

Ref.No.	Part No.	Description	Remark
C321	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C322	1-163-035-00	CERAMIC CHIP 0.047uF 10% 25V	
C323	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C324	1-126-206-11	ELECT CHIP 100uF 20% 6.3V	
C325	1-126-206-11	ELECT CHIP 100uF 20% 6.3V	
C326	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C327	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
< CONNECTOR >			
CN301	1-580-874-11	SOCKET, CONNECTOR (SMT) 22P	
< DIODE >			
D301	8-719-990-39	DIODE DCB010	
D302	8-719-027-34	DIODE LN1361C (DISC 1)	
D303	8-719-027-34	DIODE LN1361C (DISC 1)	
D304	8-719-027-34	DIODE LN1361C (DISC 1)	
D305	8-719-027-34	DIODE LN1361C (DISC 2)	
D306	8-719-027-34	DIODE LN1361C (DISC 2)	
D307	8-719-027-34	DIODE LN1361C (DISC 2)	
D308	8-719-027-34	DIODE LN1361C (DISC 3)	
D309	8-719-027-34	DIODE LN1361C (DISC 3)	
D310	8-719-027-34	DIODE LN1361C (DISC 3)	
D311	8-719-027-34	DIODE LN1361C (DISC 4)	
D312	8-719-027-34	DIODE LN1361C (DISC 4)	
D313	8-719-027-34	DIODE LN1361C (DISC 4)	
D314	8-719-027-34	DIODE LN1361C (DISC 5)	
D315	8-719-027-34	DIODE LN1361C (DISC 5)	
D316	8-719-027-34	DIODE LN1361C (DISC 5)	
D317	8-719-023-03	DIODE LN1461C (DISC 1)	
D318	8-719-023-03	DIODE LN1461C (DISC 1)	
D319	8-719-023-03	DIODE LN1461C (DISC 2)	
D320	8-719-023-03	DIODE LN1461C (DISC 2)	
D321	8-719-023-03	DIODE LN1461C (DISC 3)	
D322	8-719-023-03	DIODE LN1461C (DISC 3)	
D323	8-719-023-03	DIODE LN1461C (DISC 4)	
D324	8-719-023-03	DIODE LN1461C (DISC 4)	
D325	8-719-023-03	DIODE LN1461C (DISC 5)	
D326	8-719-023-03	DIODE LN1461C (DISC 5)	
D327	8-719-029-95	DIODE TLN117	
< FLUORESCENT INDICATOR >			
FL301	1-519-738-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC301	8-759-077-15	IC uPD75518GF-059-3B9	
IC302	8-759-077-16	IC M66004M4FP	

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PANEL

Ref. No.	Part No.	Description	Remark
< COIL >			
L301	1-410-385-11	INDUCTOR CHIP 22uH	
L302	1-410-385-11	INDUCTOR CHIP 22uH	
< TRANSISTOR >			
Q301	8-729-602-21	TRANSISTOR 2SC4154-F	
Q302	8-729-602-36	TRANSISTOR 2SA1602	
Q303	8-729-804-41	TRANSISTOR 2SB1122-S	
Q304	8-729-018-23	TRANSISTOR TPS626-F	
Q306	8-729-602-21	TRANSISTOR 2SC4154-F	
Q307	8-729-602-21	TRANSISTOR 2SC4154-F	
Q308	8-729-602-21	TRANSISTOR 2SC4154-F	
Q309	8-729-602-21	TRANSISTOR 2SC4154-F	
Q311	8-729-602-21	TRANSISTOR 2SC4154-F	
Q312	8-729-602-21	TRANSISTOR 2SC4154-F	
Q313	8-729-602-21	TRANSISTOR 2SC4154-F	
< RESISTOR >			
R301	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R302	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R303	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R304	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R305	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R306	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R307	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R308	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R309	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R310	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R311	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R312	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R313	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R314	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R315	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R316	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R317	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R318	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R319	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R320	1-216-017-00	METAL CHIP 47 5% 1/10W	
R321	1-216-017-00	METAL CHIP 47 5% 1/10W	
R322	1-216-017-00	METAL CHIP 47 5% 1/10W	
R323	1-216-017-00	METAL CHIP 47 5% 1/10W	
R324	1-216-017-00	METAL CHIP 47 5% 1/10W	
R325	1-216-019-00	METAL CHIP 56 5% 1/10W	
R326	1-216-019-00	METAL CHIP 56 5% 1/10W	
R327	1-216-019-00	METAL CHIP 56 5% 1/10W	
R328	1-216-019-00	METAL CHIP 56 5% 1/10W	
R329	1-216-019-00	METAL CHIP 56 5% 1/10W	
R330	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R331	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R332	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R333	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R335	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R336	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R337	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R340	1-216-027-00	METAL CHIP 120 5% 1/10W	
R341	1-216-027-00	METAL CHIP 120 5% 1/10W	
R342	1-216-027-00	METAL CHIP 120 5% 1/10W	
R343	1-216-027-00	METAL CHIP 120 5% 1/10W	
R344	1-216-027-00	METAL CHIP 120 5% 1/10W	
R349	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R350	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R351	1-216-041-00	METAL CHIP 470 5% 1/10W	
R352	1-216-041-00	METAL CHIP 470 5% 1/10W	
R353	1-216-041-00	METAL CHIP 470 5% 1/10W	
R354	1-216-041-00	METAL CHIP 470 5% 1/10W	
R355	1-216-045-00	METAL CHIP 680 5% 1/10W	
R356	1-216-045-00	METAL CHIP 680 5% 1/10W	
R357	1-216-045-00	METAL CHIP 680 5% 1/10W	
R358	1-216-045-00	METAL CHIP 680 5% 1/10W	
R359	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R360	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R361	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R362	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R363	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R364	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R365	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R366	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R367	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R368	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R369	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R370	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R371	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R372	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R373	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R374	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R375	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R376	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R377	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R378	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R385	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R386	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R387	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R388	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R389	1-216-073-00	METAL CHIP 10K 5% 1/10W	

PANEL

TRANSFORMER

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S301	1-692-296-11	SWITCH, KEY BOARD (▶▶▶▶)	
S302	1-692-296-11	SWITCH, KEY BOARD (◀◀◀◀)	
S303	1-692-296-11	SWITCH, KEY BOARD (■)	
S304	1-692-296-11	SWITCH, KEY BOARD (▷)	
S305	1-692-296-11	SWITCH, KEY BOARD (DISC 1)	
S306	1-692-296-11	SWITCH, KEY BOARD (△ DISC 1)	
S308	1-692-296-11	SWITCH, KEY BOARD (□)	
S309	1-692-296-11	SWITCH, KEY BOARD (DISC 2)	
S310	1-692-296-11	SWITCH, KEY BOARD (△ DISC 2)	
S312	1-692-296-11	SWITCH, KEY BOARD (CONTINUE)	
S313	1-692-296-11	SWITCH, KEY BOARD (DISC 3)	
S314	1-692-296-11	SWITCH, KEY BOARD (△ DISC 3)	
S315	1-692-296-11	SWITCH, KEY BOARD (SHUFFLE)	
S317	1-692-296-11	SWITCH, KEY BOARD (DISC 4)	
S318	1-692-296-11	SWITCH, KEY BOARD (△ DISC 4)	
S320	1-692-296-11	SWITCH, KEY BOARD (PROGRAM)	
S321	1-692-296-11	SWITCH, KEY BOARD (DISC 5)	
S322	1-692-296-11	SWITCH, KEY BOARD (△ DISC 5)	
S324	1-692-296-11	SWITCH, KEY BOARD (REPEAT)	
S325	1-692-296-11	SWITCH, KEY BOARD (CHARATER ▷)	
S326	1-692-296-11	SWITCH, KEY BOARD (CHARATER ◁)	
S328	1-692-296-11	SWITCH, KEY BOARD (CURSOR)	
S329	1-692-296-11	SWITCH, KEY BOARD (MEMO INPUT)	
S330	1-692-296-11	SWITCH, KEY BOARD (ERASE)	
S331	1-692-296-11	SWITCH, KEY BOARD (TIME/MEMO)	
S332	1-692-296-11	SWITCH, KEY BOARD (SOUND FIELD FILE)	
< VIBRATOR >			
X301	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	

*	A-4649-456-A	TRANSFORMER BOARD, COMPLETE (EXCEPT AEP, UK, G, IT)	
*	A-4649-461-A	TRANSFORMER BOARD, COMPLETE (G)	
*	A-4649-464-A	TRANSFORMER BOARD, COMPLETE (AEP, UK, IT)	

*	3-309-144-21	HEAT SINK	
	7-682-547-04	SCREW +BVTT 3X6 (S)	
< CAPACITOR >			
C200	1-126-939-11	ELECT 10000uF 20% 16V	
C202	1-164-159-11	CERAMIC 0.1uF 50V	
C203	1-164-159-11	CERAMIC 0.1uF 50V	
C205	1-124-443-00	ELECT 100uF 20% 10V	
C206	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C207	1-164-159-11	CERAMIC 0.1uF 50V	
C208	1-124-443-00	ELECT 100uF 20% 10V	

Ref. No.	Part No.	Description	Remark
C209	1-164-159-11	CERAMIC 0.1uF 50V	
C210	1-164-159-11	CERAMIC 0.1uF 50V	
C211	1-124-443-00	ELECT 100uF 20% 10V	
C246	1-124-572-11	ELECT 100uF 20% 63V	
C247	1-124-907-11	ELECT 10uF 20% 50V	
C248	1-161-329-00	CERAMIC 0.0068uF 20% 16V	
C249	1-161-329-00	CERAMIC 0.0068uF 20% 16V	
C251	1-124-907-11	ELECT 10uF 20% 50V	
C254	1-124-902-00	ELECT 0.47uF 20% 50V	
C255	1-124-902-00	ELECT 0.47uF 20% 50V	
C256	1-124-907-11	ELECT 10uF 20% 50V	
C257	1-124-907-11	ELECT 10uF 20% 50V	
C258	1-162-282-31	CERAMIC 100PF 10% 50V	
< CONNECTOR >			
* CN201	1-569-624-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL 2)	
* CN213	1-564-499-11	PIN, CONNECTOR 6P	
* CN216	1-562-327-00	SOCKET, CONNECTOR 3P	
< DIODE >			
D201	8-719-210-21	DIODE 11EQS04	
D202	8-719-210-21	DIODE 11EQS04	
D203	8-719-200-82	DIODE 11ES2	
D204	8-719-014-86	DIODE UZP-6.8BB	
D206	8-719-987-63	DIODE 1N4148M	
< IC >			
IC201	8-759-604-86	IC M5F7807L	
IC202	8-759-604-30	IC M5F7808L	
IC203	8-759-821-93	IC LA5601	
IC204	8-759-821-93	IC LA5601	
IC213	8-759-633-42	IC M5293L	

< RESISTOR >

△R201	1-249-393-11	CARBON 10 5% 1/4W F	
△R202	1-249-405-11	CARBON 100 5% 1/4W F	

< TRANSFORMER >

△T201	1-450-984-11	TRANSFORMER, POWER	
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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
11	1-696-633-11	WIRE (FLAT TYPE)	
78	1-452-676-11	MAGNET	
86	1-696-634-11	WIRE (FLAT TYPE)	
△155	8-848-144-11	DEVICE, OPTICAL KSS-240A	
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M1	X-4917-523-3	MOTOR ASSY, SPINDLE	
M2	X-4917-504-1	MOTOR ASSY, SLED	
M101	A-4660-232-A	MOTOR (CDM) ASSY	
M102	A-4460-232-A	MOTOR (CDM) ASSY	
M103	A-4460-232-A	MOTOR (CDM) ASSY	
S102	1-466-819-11	ENCORDER, ROTARY	

HARDWARE LIST

#1	7-682-546-04	SCREW +BVTT 3X5 (S)
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#3	7-624-106-04	STOP RING 3.0, TYPE -E
#4	7-682-546-09	SCREW +PTT 3X5 (S)
#5	7-685-645-79	SCREW +BTP 3X6 TYPE2 N-S
#6	7-621-775-00	SCREW +B 2.6X3
#7	7-621-255-35	SCREW +BVTT 2X5 (S)
#8	7-621-773-95	SCREW +BVTT 2.6X6 (S)
#9	7-685-531-14	SCREW +BTP 2.6X4 TYPE2 N-S
#10	7-621-770-XX	SCREW +PTT 2.6X8 (S)
#11	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S
#12	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S
#13	7-621-255-15	SCREW +P 2X3
#14	7-682-547-09	SCREW +BVTT 3X6 (S)
#15	7-682-547-04	SCREW +BVTT 3X6 (S)

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CDP-H3750

SONY. SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model*

CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
	<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
21	M102	A-4460-232-A	MOTOR (CDM) ASSY	A-4660-232-A	MOTOR (CDM) ASSY
	M103	A-4460-232-A	MOTOR (CDM) ASSY	A-4660-232-A	MOTOR (CDM) ASSY

CDP-H3750

SONY[®] SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model

SUPPLEMENT-1

File this supplement-1 with the Service Manual.

Subject :

1. TEST MODE
2. BLOCK DIAGRAM
3. IC PIN DESCRIPTION

TEST MODE

- Press the three keys: **DISC1**, **DISC5** and **■** simultaneously to enter the Test Mode.

(1) FL Tube All Lighting

This mode is entered just after power is turned on.

(2) FL Tube Segment Check

This mode is entered when **DISC1** key is pressed in mode (1).

Make sure that the mode changes from * 1 to * 2 to * 3 and then to * 1 and so on in turn each time **DISC1** key is pressed.

* 1

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SHUFFLE PROGRAM REPEAT1 S.F.FILE

4 5 6 7 8 9 10 11 12 13 14 15 16

* 2

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■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
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SHUFFLE PROGRAM REPEAT1 S.F.FILE

4 5 6 7 8 9 10 11 12 13 14 15 16

* 3

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■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■
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SHUFFLE PROGRAM REPEAT1 S.F.FILE

4 5 6 7 8 9 10 11 12 13 14 15 16

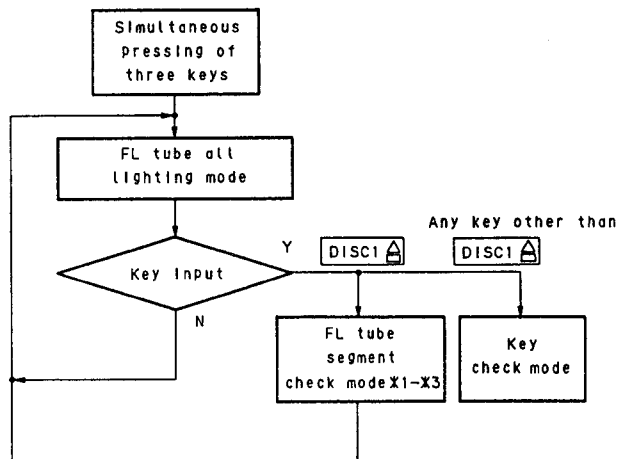
(3) Key Check

This mode is entered and "1" is displayed when and key other than **DISC1** is pressed in mode (1). The number displayed is incremented each time any new key is pressed. Make sure that "7" is displayed when all the different keys have been pressed.

Note that once a key has been pressed, even if that key is pressed again, it is not be counted.

* To exit mode (2) and mode (3), press the three keys:

DISC1, **DISC5** and **■** simultaneously.



2. Test Mode for CD System Controller (IC250)

(1) ADJUST Mode

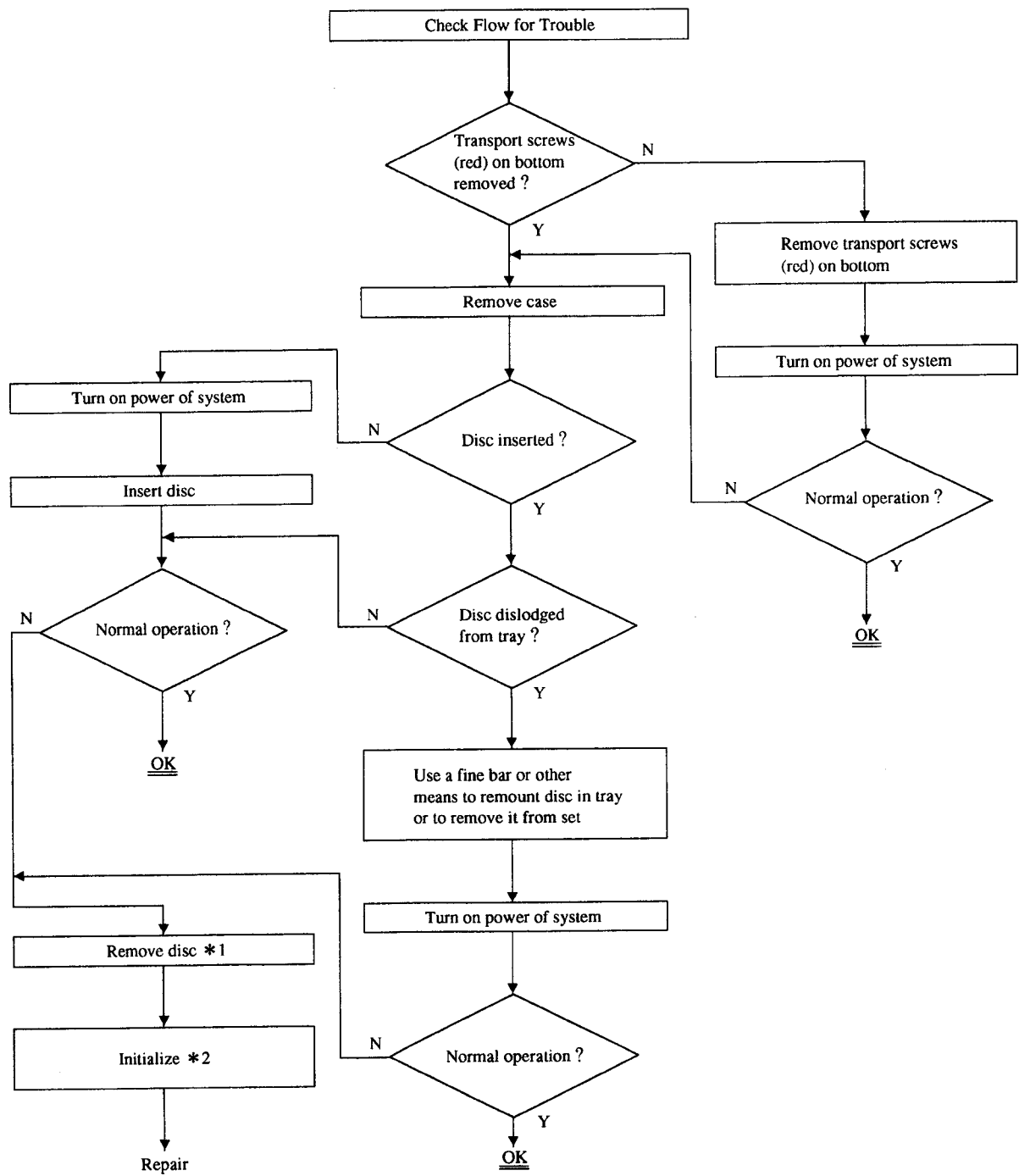
In this mode, the system looks like performing normal operation except that:

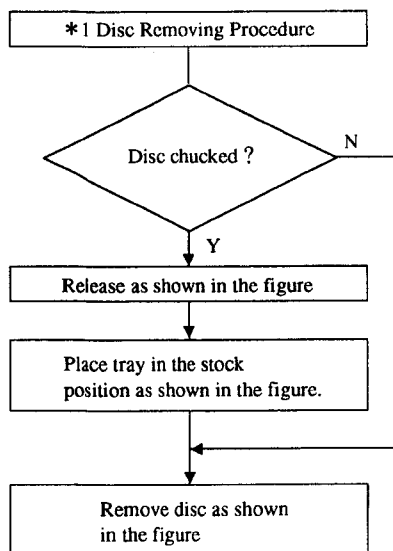
- When IC250 pin ③ (ADJ) is set "L" after power is turned on:

- The system will not monitor GFS during PLAY, PAUSE and SEARCH. It will not STOP even if GFS remains "L" (NG).
- No high speed feed is performed during SEARCH.
- Focus gain will be returned to normal during PLAY. (Usually, when focus is locked, the gain is decreased to reduce noise.)

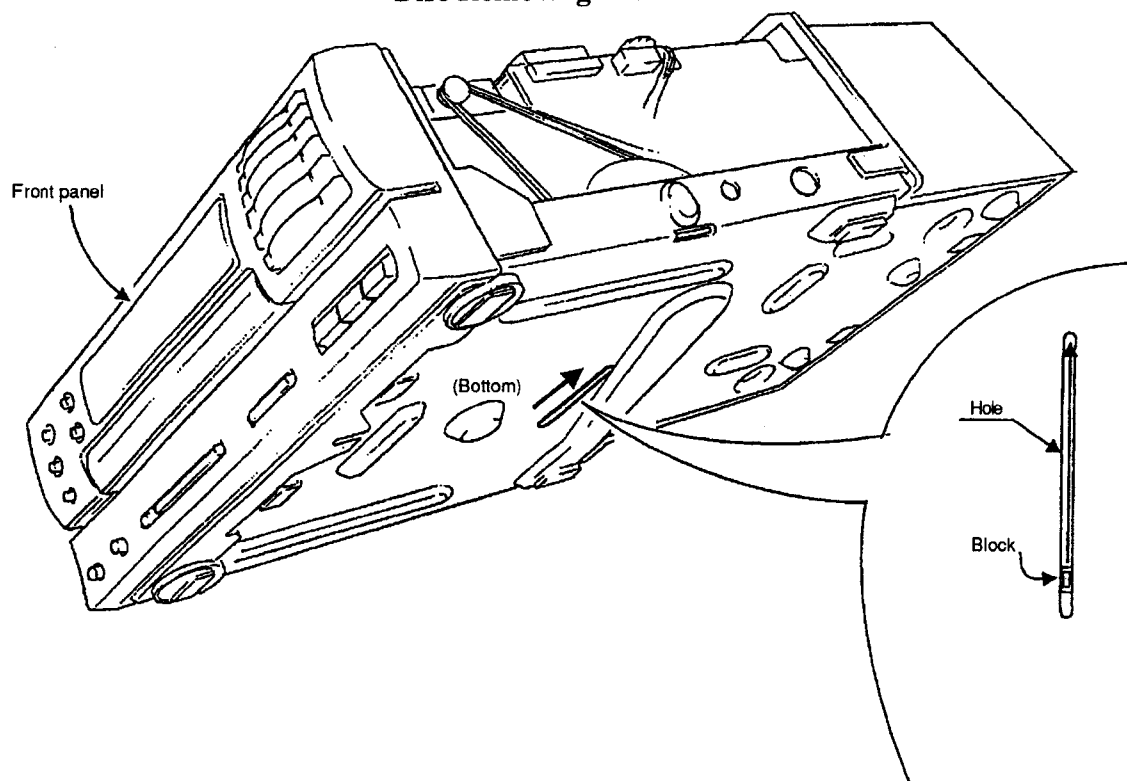
- When IC250 pin ⑨ (AFADJ) is set "L" after power is turned on:

- CLV mode during PLAY will be CLV-S (rough servo) independent of the state of pin ⑨ (ADJ) as the CLV-S lock function.

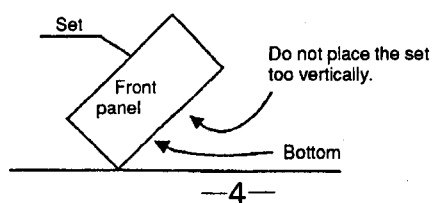


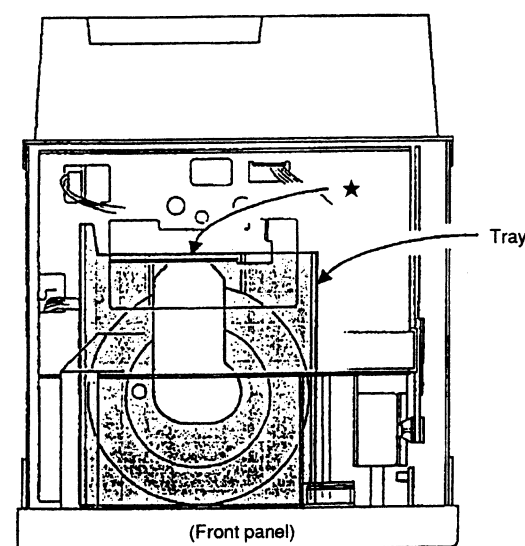
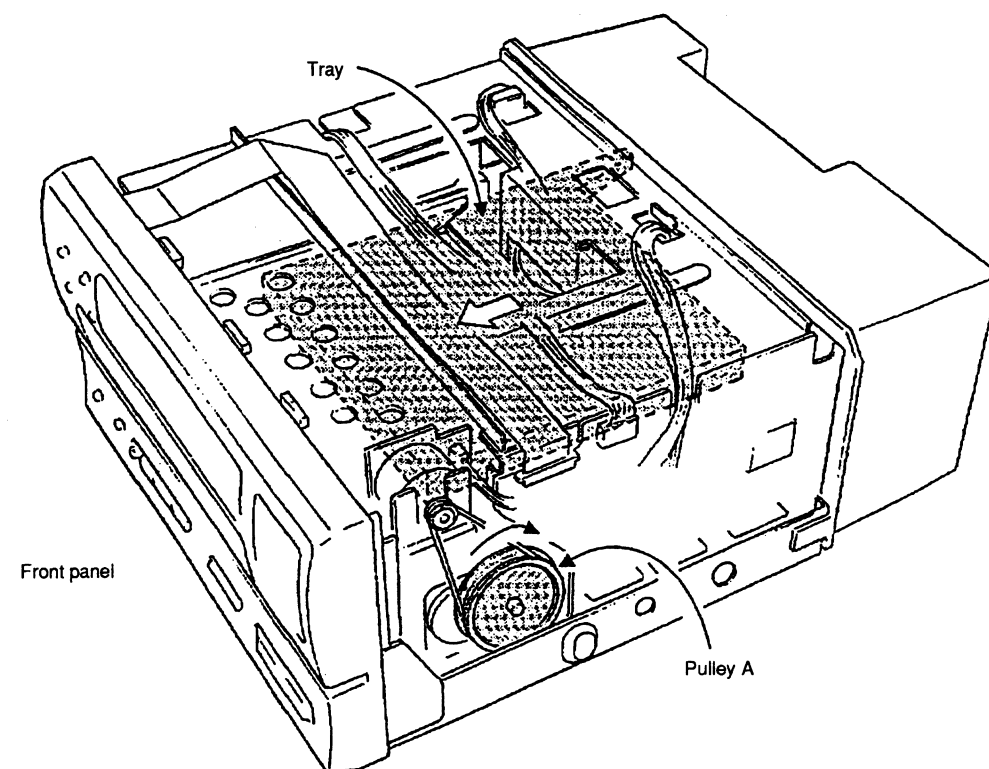


Disc Removing Procedure



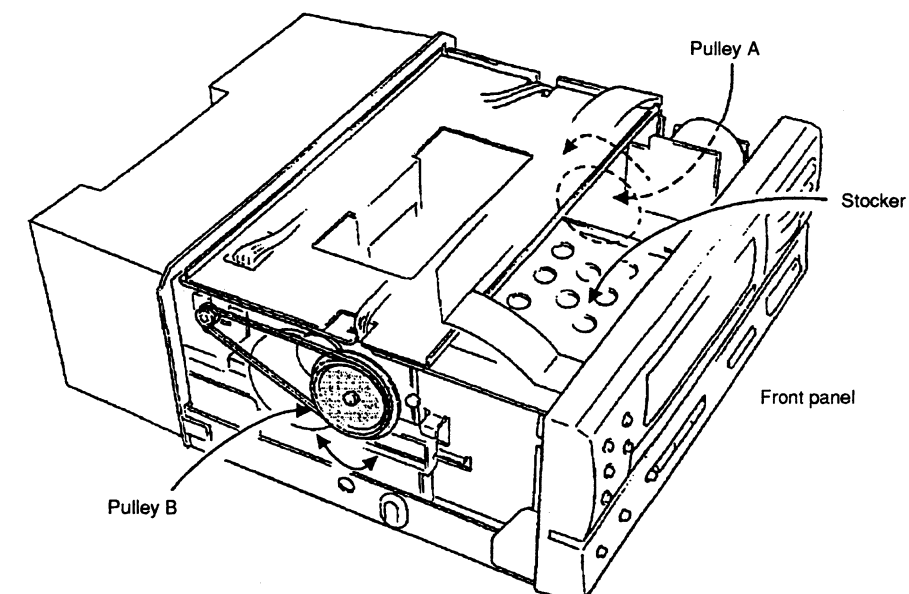
- 1) Insert a fine bar into the hole and move the block in the arrow direction.
(If disc is chucked, to prevent fall of disc, place the set as illustrated below.)



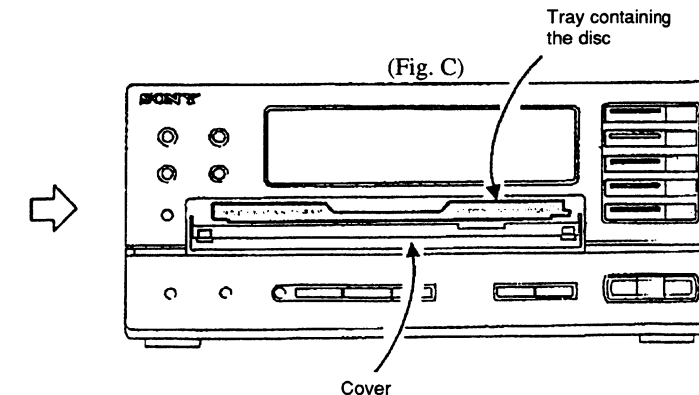
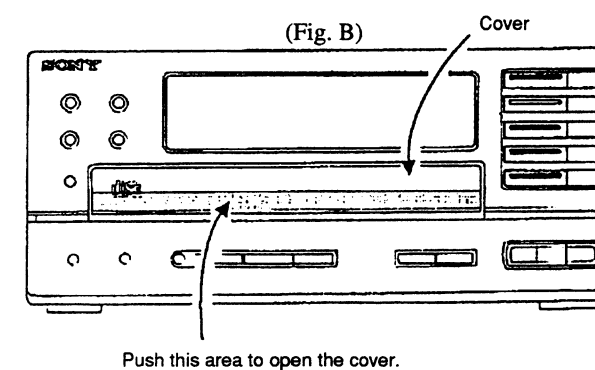


- 2) Rotate pulley A clockwise (↻). While observing the disc tray moves in the arrow (⇌) direction, move the tray until its rear is aligned with others (★ marked portion). (See Fig. A)

(Fig. A)



- 3) Rotating pulley B will move the stocker where disc trays are stocked up and down. Open the cover on the front panel (Fig. B) and adjust so that the tray containing the disc is at the cover position (Fig. C).



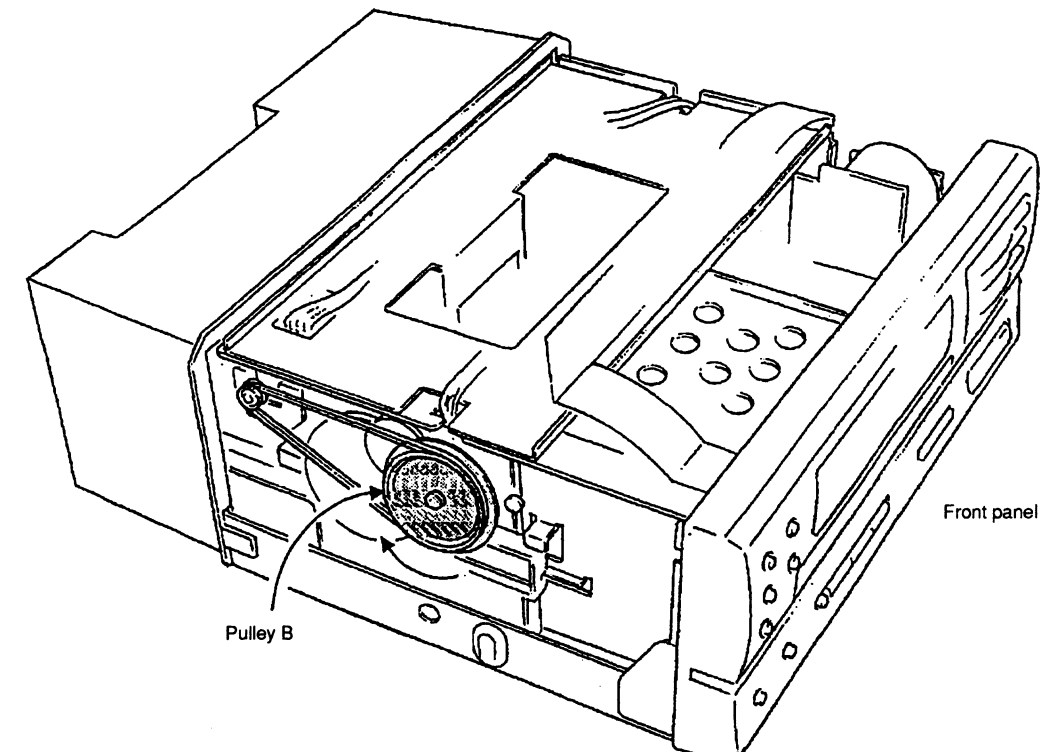
- 4) Rotating pulley A counterclockwise (↺) will eject the tray containing disc. Remove the disc, then rotate pulley A clockwise to return the tray to the position as shown in Fig. A.

• If some trays contain disc, repeat Items 3) and 4).

*** 2 Initializing Procedure**

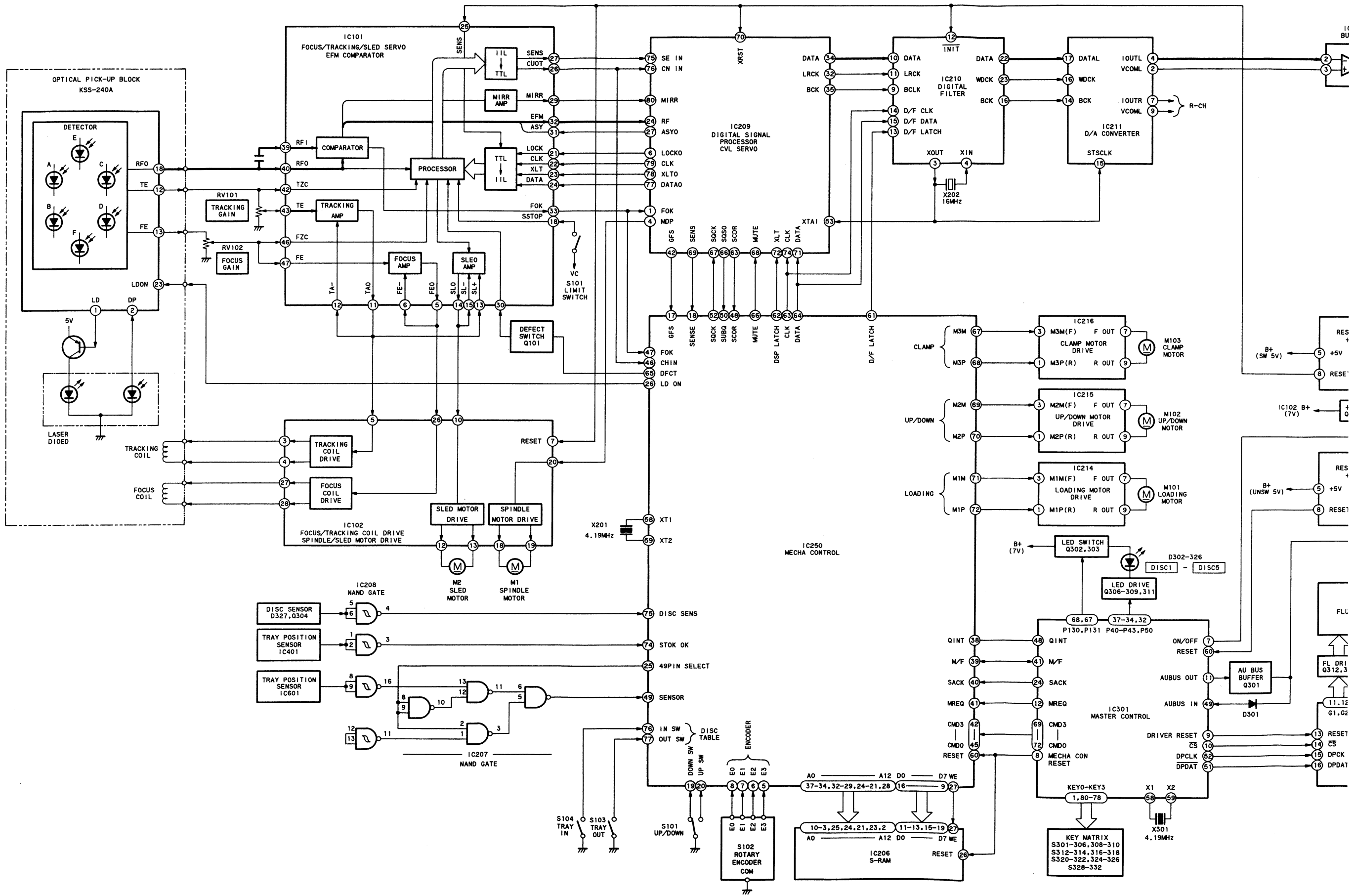
- 1) If mechanism is operated when power of system is turned on :
Make sure that all disc are removed. Open DISC No. 1.
↓
Turn off power of system.
↓
“OFF” characters flash on the CD display.
↓
- 2) If mechanism is operated when power of system is turned on :
Move disc tray as shown in the figure.

Initializing Procedure



- * Make sure that all the trays are arranged to the position shown in Fig. A, then rotate pulley B in the arrow direction until it stops.

BLOCK DIAGRAM





IC PIN DESCRIPTION

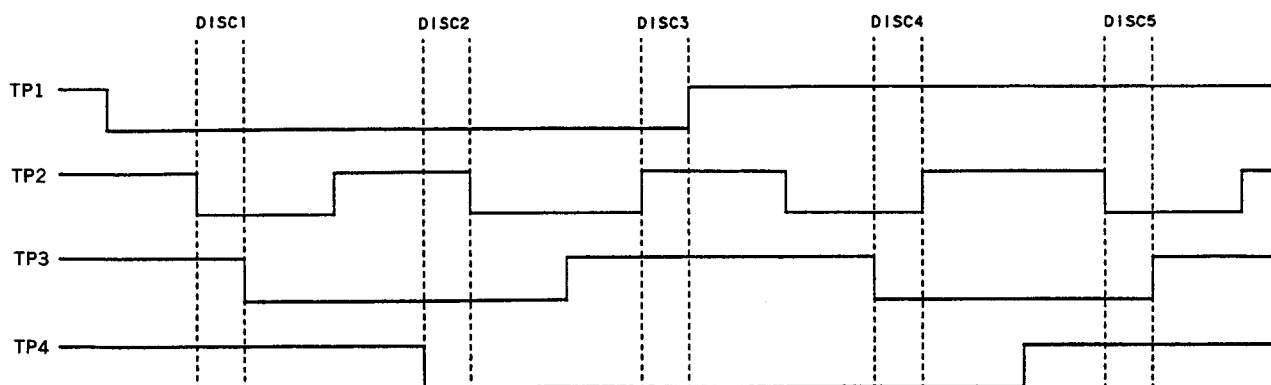
● IC250 μ PD75516GF-399-3B9 Mechanism Controller Microprocessor

For operations with the CD unit's IC101 (RF signal processing and servo), IC209 (DSP and digital filter) loading control, IC206 (SRAM), and data exchange with IC301 (master controller).

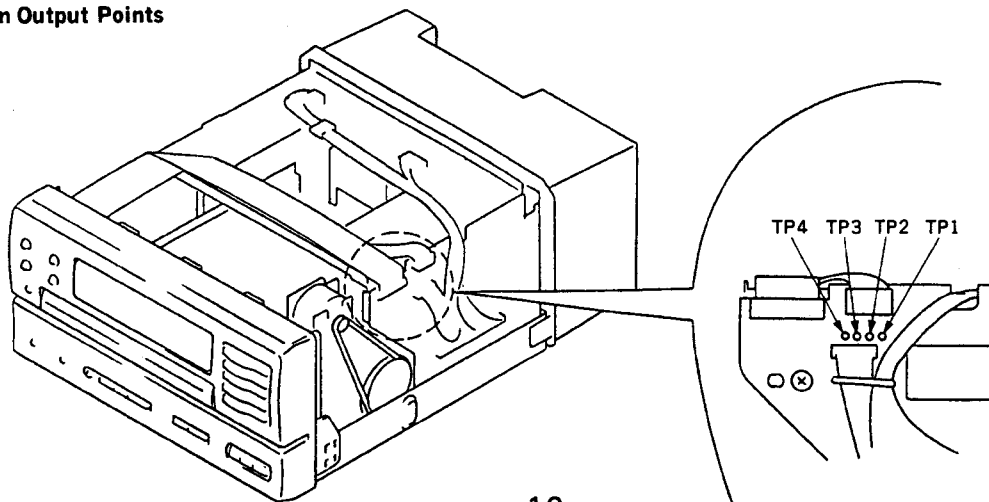
Pin No.	Pin Name	I/O	Description
1	NC		No connect pin
2	AVDD	—	Power pin (+5V)
3, 4	VDD	—	Power pin (+5V)
5—8	E3—0	I	Stocker position detection encoder input (4-bit parallel decoder). * 1
9—16	D7—0	O	Data output port of IC206 (64K SRAM) (8-bit parallel data).
17	GFS	I	GFS signal input from IC209 (CXD2500BQ). "L" for NG, "H" for OK.
18	SENSE	I	SENS input from IC101 (CXD1372Q) and IC209 (CXD2500BQ).
19	DOWN SW	I	Down input of S101 (BD Up and Down switch).
20	UP SW	I	Up input of S101 (BD Up and Down switch).
21—24	A11—8	O	IC106 (64K SRAM) address output port.
25	49 PIN SELECT	O	Pin ④ function select. Always "L" for use of Stock IN in this set.
26	LD ON	O	BD laser diode control output. "H" to toggle ON, "L" to toggle OFF.
27	WE	O	IC206 (64K SRAM) write enable output. "H" to disable, "L" to enable.
28—32	A12, A7—4	O	IC206 (64K SRAM) address output port.
33	GND	—	Power pin (GND)
34—37	A3—0	O	IC206 (64K SRAM) address output port.
38	QINT	I/O	Interrupt signal output during communication with master controller. * 2
39	M/F	I/O	To determine type of communication with master controller. "H" for mechanism command data, "L" for file command data.
40	SACK	I/O	Answer code input from master controller during communication with master.
41	MREQ	I/O	Master request signal input for communication with master controller.
42—45	CMD3—0	I/O	Command data line in communication with master controller.
46	CHIN	I	Track jump count input from IC101 (CXD1372Q).
47	FOK	I	Focus OK signal input from IC101 (CXD1372Q). "H" for OK.
48	SCOR	I	Sub code sink S0+S1 detection input from IC209 (CXD2500BQ).
49	SENDER	I	STOK IN signal input in this set. 
50	SUBQ	I	Sub code Q data input from IC209 (CXD2500BQ).
51	GND	—	Power pin (GND)
52	SQCK	O	Sub code Q data read clock output to IC209 (CXD2500BQ).
53	ADJ	I	Test Mode input. "L" to enter Test Mode.
54	GND	—	Power pin (GND)
55	XT1	—	Not used (GND)
56	XT2	—	Not used (Open)
57	GND	—	Power pin (GND)
58, 59	X1, 2	I	System clock input (4.19MHz)
60	RESET	I	System clock input. "L" to reset.
61	D/F LATCH	O	IC210 (MSM6538) latch signal output.
62	DSP LATCH	O	IC209 (CXD2500BQ) latch signal output.
63	CLK	O	Clock data output to IC210 (MSM6538).

Pin No.	Pin Name	I/O	Description															
64	DATA	O	Data output to IC210 (MSM6538).															
65	DFCT SW	O	Used during focus search to turn OFF (set “H”) flaw detection circuit of ON/OFF select output DISC in DEFECT circuit of IC101 (CXD1372Q).															
66	MUTE	O	Muting control output. “H” to mute.															
67	M3M	O	Clamp motor control output	<table><tr><td>↖</td><td>UP</td><td>DOWN</td><td>BREAK</td></tr><tr><td>P</td><td>H</td><td>L</td><td>H</td></tr><tr><td>M</td><td>L</td><td>H</td><td>H</td></tr></table>			↖	UP	DOWN	BREAK	P	H	L	H	M	L	H	H
↖	UP	DOWN					BREAK											
P	H	L	H															
M	L	H	H															
68	M3P	O																
69	M2M	O	Stocker motor control output	<table><tr><td>↖</td><td>UP</td><td>DOWN</td><td>BREAK</td></tr><tr><td>P</td><td>H</td><td>L</td><td>H</td></tr><tr><td>M</td><td>L</td><td>H</td><td>H</td></tr></table>			↖	UP	DOWN	BREAK	P	H	L	H	M	L	H	H
↖	UP	DOWN					BREAK											
P	H	L	H															
M	L	H	H															
70	M2P	O																
71	M1M	O	Loading motor control output	<table><tr><td>↖</td><td>OUT</td><td>IN</td><td>BREAK</td></tr><tr><td>P</td><td>H</td><td>L</td><td>H</td></tr><tr><td>M</td><td>L</td><td>H</td><td>H</td></tr></table>			↖	OUT	IN	BREAK	P	H	L	H	M	L	H	H
↖	OUT	IN					BREAK											
P	H	L	H															
M	L	H	H															
72	M1P	O																
73	AGND	—	Power pin (GND)															
74	STOK OK	I	Tray position detection input. “L” for stocker UP/DOWN enabled position.															
75	DISC SENS	I	Used to determine whether disc is present or not. : With, “—”: Without															
76	IN SW	I	S103 (Loading In switch) input															
77	OUT SW	I	S104 (Loading Out switch) input															
78	TEST	I	Test Mode input. “L” for Test Mode.															
79	AF ADJ	I																
80	NC		No connect pin															

* 1 Encoder output waveform from DISC1 to DISC5



Waveform Output Points



Format in general communications.....(1) and (2)

Initial communication is made between mechanism microprocessor IC250 and master microprocessor IC301 in their respective initial routines. This has a different format from general communications. Handshake is performed in MTREQ and SACK. If any fault occurs in initial communication, the communication stops at that points, so the indicator remains extinguished.

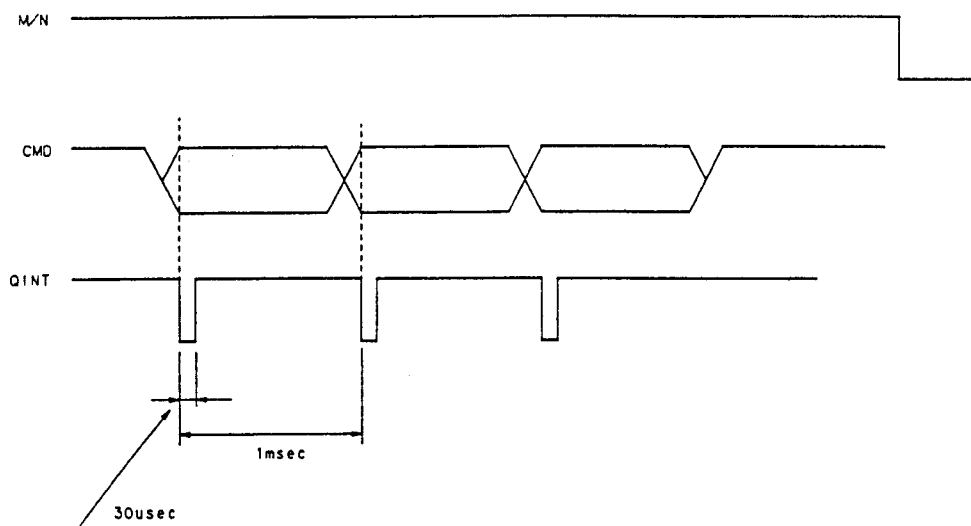
Communications between mechanism controller and master controller are made using eight signal lines between their ports (CMD1, CMD2, CMD3, CMD4, MREQ, SACK, M/F and QINT).

The timing diagram illustrates the sequence of signals for the M24C02. The signals are M/F, MREQ, SACK, and CMD. The diagram is divided into seven numbered regions (1-7) by vertical dashed lines. Region 1 shows M/F high. Region 2 shows MREQ falling. Region 3 shows SACK falling. Region 4 shows MREQ rising. Region 5 shows SACK rising. Region 6 shows CMD with a trapezoidal pulse. Region 7 shows MREQ falling again.

- ① M/F pin is to be set "High" when master microprocessor sends mechanism command and "Low" when it sends a file command. Mechanism controller will not make Q data communication when M/F pin is "Low".
- ② When sending a command from master microprocessor to mechanism controller, the data is put on the CMD line and this pin (MREQ) is set "Low".
- ③ Mechanism controller monitors the MREQ pin in its main routine. It latches the CMD data when the pin is at "Low" level. Then, it sets this pin (SACK) "Low".
- ④ Master controller confirms that the SACK pin is set "Low" and it sets the MREQ pin "High".
- ⑤ Then, when the MREQ pin is "High" and the SACK pin is "Low", mechanism controller sets the SACK "High" and it is ready to accept the send command.
- ⑥ The signal from master begins with "A"—"E". If the mechanism controller receives any code other than this, it treats as an error.
- ⑦ This signal ends with "F". After this is confirmed, the flag is set and the command is then decoded in the main routine.

(2) Format of Transmission to Master

The QINT pin, M/F pin and MD port are used to send a command to master microprocessor. This transmission from mechanism controller to master microprocessor is used for responses to DISC status information, SW state and file information. Also, the same transmission format is used to send Q data from mechanism controller to master.



When data can be sent from mechanism controller, the data is then sent to the CMD line. Therefore the QINT pin of mechanism controller is dropped by about 30µsec.

The timing of data transmission is controlled by timer process within microprocessor so that data will be sent at intervals of 1 msec.

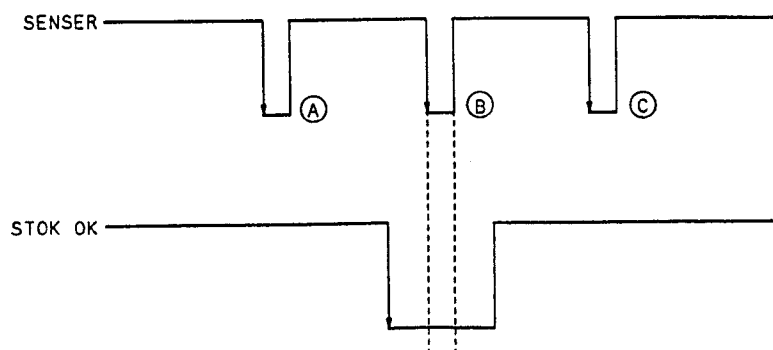
The QINT pin of master controller is an interrupt port, so data sent from mechanism controller is to be received. Any request from master microprocessor (MREQ pin "Low") during data transmission to master will take first priority in processing.

Basic Condition of Mechanism Controller

Mechanism controller takes precedence over instruction from master microprocessor.

(3) Timing at Pins ④ and ⑦ of IC250

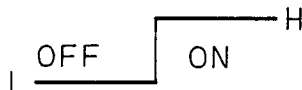
Waveform at SENSER (IC250 pin ④) and STOK OK (IC250 pin ⑦) when tray is OPEN/CLOSE



As shown above, the center pulse (B) of SENSER mute fall within the pulse of STOK OK when tray is OPEN/CLOSE. If any of the pulses on both sides (A and C) of SENSER is input for BOX UP/DOWN, the mechanism microprocessor reduces the tray speed, stops in the position (B) and allows UP/DOWN movement.

If there is any abnormality in the OPEN/CLOSE relationship, these two waveforms should be checked.

•IC301 μ PD75518GF-059-3B9

Pin No.	Signal	Pin Name	Description
1	AN0	KEY0	KEY analog input
2	AVREF		+5V
3, 4	VDD		
5	P113		Open
6	P112	DRIVER	Driver reset 
7	P111	ICON OFF	Servo system ON/OFF 
8	P110	MEC REST	Mechanism controller reset 
9	P103		Open
10	P102	$\overline{CS}$	Driver chip select
11	P101	BUS OUT	Audio bus output port
12	P100	$\overline{MREQ}$	For communication with mechanism controller, and master request.
13	P93	AUB/ $\overline{SIR}$	Switching between BUS and SIRCS (no function)
14	P92	$\overline{TEST}$	This pin is set "L" and POWER is ON to display the accident code
15	P91	SUF, $\overline{REP}$	This pin is set "L" to operate ALL DISCS SHUFFLE REPT
16	P90	SFIL/ $\overline{EDT}$	This pin is set "L" to change S. F. FILE key to EDIT key
17—20	P83—80		+5V
21—23	P73—71		+5V
24	P70	SACK	For communication with mechanism controller, and Answer Code from master.
25—28	P63—60		Open
29—31	P53—51		
32	P50	LED4	LED data
33	VSS		GND
34—37	P43—40	LED3—0	LED data
38—40	P23—20		Open
46, 47	P13, 12		GND
48	INT1	QINT	Interrupt from mechanism controller
49	INT0	BUSIN	Interrupt of audio bus
50	P03		+5V
51	SO0	DPDAT	Output as serial port, used as serial clock to send displayed data to driver.
52	SCK0	DPCK	
53	P00		GND
54	VSS		GND
55	XT1		GND
56	XT2		Open
57	IC		GND
58	X1		4.19MHz oscillator
59	X2		
60	RESET		Reset input for this microprocessor

CDP-H3750

Pin No.	Signal	Pin Name	Description
61—64	P143—140		Open
65, 66	P133, 132		
67, 68	P131, 130	LEDG1, 0	LED digital 1, 0.
69—72	P123—120	CMD3—0	Communication with mechanism controller (data 3—0)
73	AVSS		GND
74—77	P153—150		GND
78—80	AN3—1	KEY3—1	KEY analog input

SS-H1750

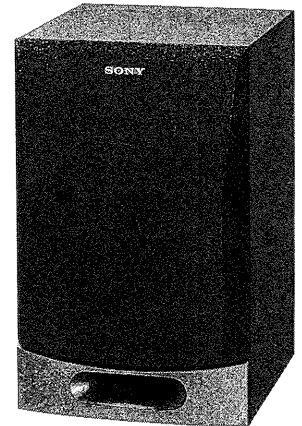
SERVICE MANUAL

*US Model
Canadian Model
Mexican Model*

SPECIFICATIONS

Speaker system	3-way
Speaker units	Woofer : 14 cm (5 1/2 in), cone type Tweeter : 5 cm (2 in), cone type Super tweeter : 2 cm (13/16 in), dome type
Sensitivity	88 dB/W/m
Effective frequency range	60 - 20,00Hz
Rated impedance	6 ohms
Dimensions	Approx. 195 x 300 x 225mm (7 3/4 x 11 7/8 x 8 7/8 in)
Weight	Approx. 2.9 kg (6 lb 6 oz)

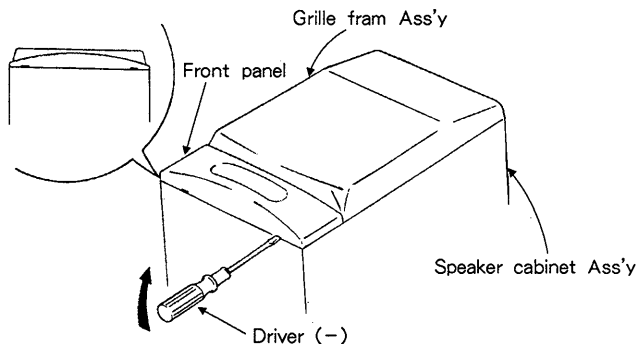
Design and specifications subject to change without notice.



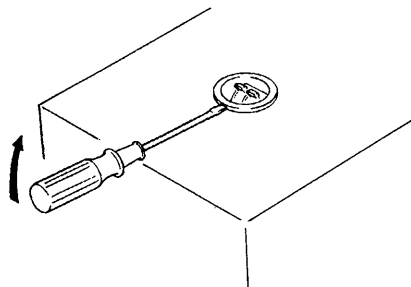
This set is the speaker system in MHC-1750.

1. DISASSEMBLY

1-1. FRONT PANEL

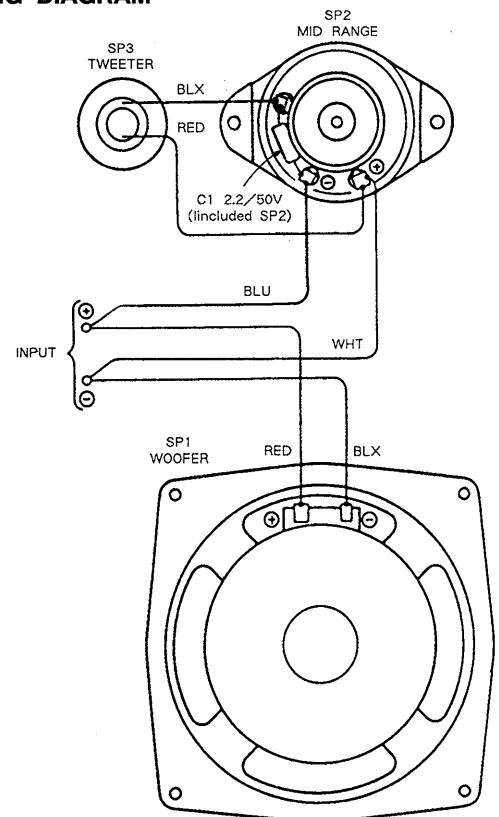


1-2. TERMINAL BOARD



- Hit the terminal with the back of a screwdriver from the inside, and tap it out.
- Insert a slotted screwdriver at the rim of the terminal and remove as shown in the figure.

2. WIRING DIAGRAM

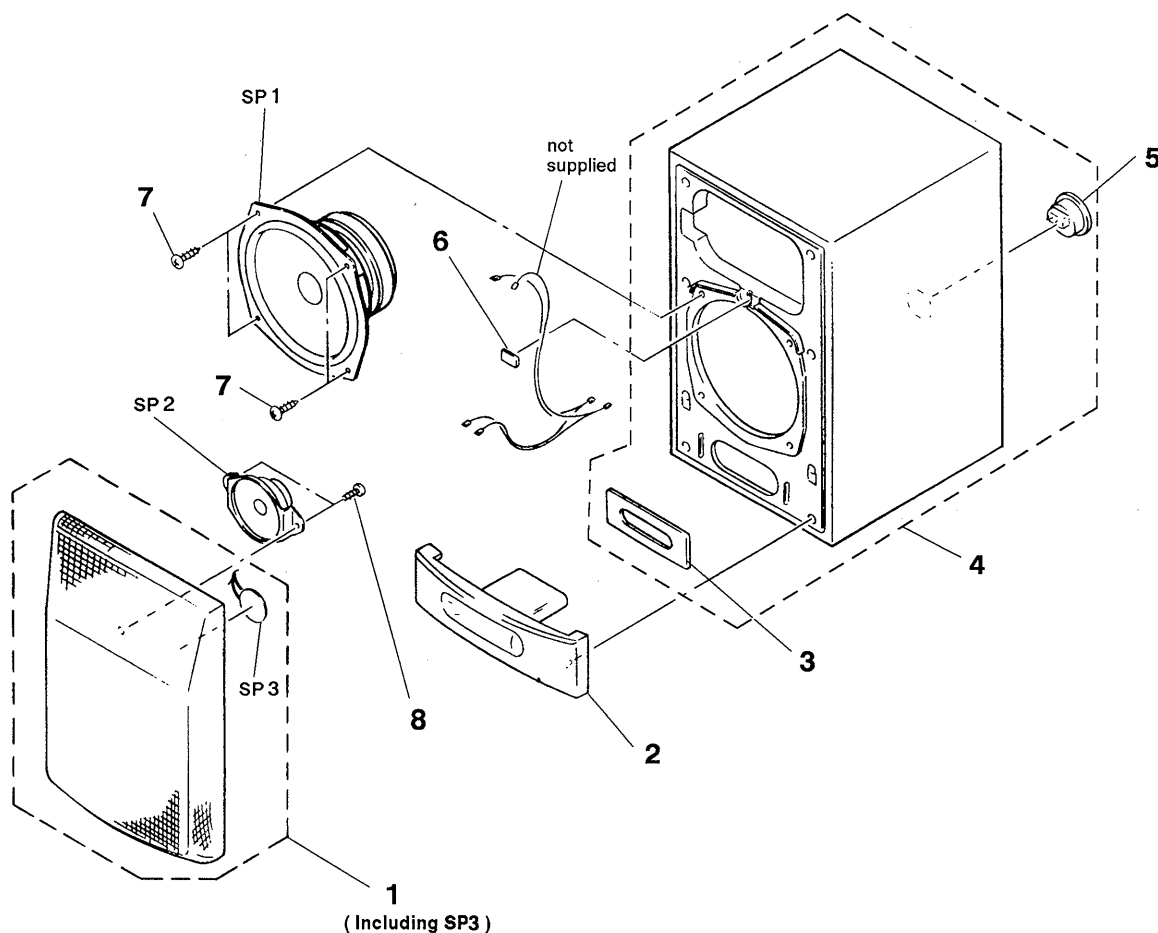


SPEAKER SYSTEM
SONY®

3. EXPLODED VIEW AND PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "※" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
1	X-4942-867-1	FRAME ASSY, GRILLE		6	9-911-844-XX	PACKING	
2	4-953-972-01	PANEL, FRONT		7	4-874-614-11	SCREW (4) (3.5X14), TAPPING	
3	4-953-975-02	PACKING		8	7-685-646-79	SCREW +BVTP 3X8 TYPE2 SLIT	
4	X-4942-866-1	CABINET ASSY, SPEAKER		SP1	1-544-237-11	SPEAKER (13CM)	
5	1-537-332-11	TERMINAL BOARD		SP2	1-544-236-11	SPEAKER (5CM)	